



CITY OF LUMBERTON

CITY COUNCIL

AGENDA • JANUARY 13, 2025

Regular Meeting

Council Chambers

6:00 PM

500 N Cedar St, Third Floor, Lumberton, NC
28358

Mayor Bruce W. Davis

Councilmember Leroy Rising, Precinct 1
Councilmember Melissa Robinson, Precinct 2
Councilmember John Carroll, Precinct 3
Councilmember Karen Higley, Precinct 4

Councilmember John Cantey, Precinct 5
Councilmember Alfred Douglas, Precinct 6
Councilmember Eric Chavis, Precinct 7
Councilmember Owen Thomas, Mayor Pro Tem

STAFF:

Wayne Horne, City Manager
Brandon Love, Deputy City Manager
Holt Moore, City Attorney
Laney Mitchell-McIntosh, City Clerk

I. Call to Order

- A. Invocation –
- B. Pledge of Allegiance –

II. Public Comment Period

III. Consent Agenda

- A. Minutes Approval - Approval of Minutes for November 26, 2024 City Council Meeting
- B. Ratify the Designation of \$2,000 to Rutherford County - Wayne Horne, City Manager
- C. Ratify the Change Order Amendment to the Carolina Civic Center Annex Project - Holt Moore, Legal

IV. Agenda Items

- A. Permission to Accept the 2024 Edward Byrne JAG Grant
- B. Lumberton Police Department is requesting permission to apply for AKC Reunite Grant - michael mneill, Police
- C. Lumberton Police Department is requesting permission to retire K-9 Ares - Michael McNeill, Police

- D. Installation of Stop Signs - Intersection of 13th Street and Willis Avenue - Michael McNeill, Police
- E. Request to purchase Fire Engines - Chris West, Fire
- F. Facade Grant Program Allocation Increase - Sarah Ward, City Manager
- G. Approval of Main Street Lumberton Advisory Board Member - Sarah Ward, City Manager
- H. Engineer Selection for the Rosewood Drive Drainage Project - Rob Armstrong, Public Works
- I. Engineer Selection for the Bailey Road - Five Mile Branch Hydraulic Study - Rob Armstrong, Public Works
- J. Shelter Repair at Public Works - Rob Armstrong, Public Works
- K. Gavintown Lift Station Pumps - Corey Walters, Public Works
- L. Appointment to Personnel Board - Holt Moore, Legal
- M. Revisions to Education Adjustment Policy - Holt Moore, City Attorney
- N. Adopt a Resolution Accepting the Funding Offer for the Lead Service Inventory Project (Phase 1) - Wayne Horne, City Manager
- O. Lumberton High School Wrestling Teams - John Cantey, City Council
- P. Dr. Martin Luther King Parade - John Cantey, City Council
- Q. St. Alban's Masonic Lodge Request - Melissa Robinson, City Council
- R. Authorize the Lumberton Police Department to apply for and accept the FY26 GHSP Grant - Michael McNeill, Police
- S. Authorize Lumberton Police Department to apply for and accept FY26GHSP Grant for overtime - Michael McNeill, Police
- T. Authorization for Lumberton Police Department to apply for and accept NC Governor's Crime Commission Grant - Michael McNeill, Police
- U. Emergency Sewer Repairs - Rob Armstrong, Public Works

V. Adjournment



CITY OF LUMBERTON

CITY COUNCIL

MINUTES • NOVEMBER 26, 2024

Regular Meeting

Council Chambers

11:00 AM

500 N Cedar St, Third Floor, Lumberton, NC
28358

I. Call to Order

II. Consent Agenda

- A. Ratify the Designation of \$700 of CRF to the 2024 Client Christmas Project - BART - Laney Mitchell-McIntosh, City Clerk, City Manager

Mayor Davis added \$100.00.

- B. Ratify the Designation of \$700 of CRF to Lumberton High School for Christmas Celebration. Funds were designated as follows: P1 - \$100 P2 - \$100 P3 - \$100 P4 - \$100 P6 - \$100 P7 - \$100 and P8 - \$100 for a total of \$700.00 - Laney Mitchell-McIntosh, City Clerk, City Council

- C. Ratify the Designation of \$1,600 of Community Revitalization Funds to the Empty Stocking Fund: P1 - \$200 P-2 \$200 P3 - \$500 P4 - \$300 P7 - \$300 and P8 - \$100 for a total of \$1,600. - Laney Mitchell-McIntosh, City Clerk, City Council

Mayor Davis added \$100.00.

III. Agenda Items

- A. HMGP Florence Bid Award Group 3 - Stephanie Canady, Community Development, Planning & Neighborhood Services

On November 18, 2024, at 2:45 pm, bids were received for demolishing 4 homes acquired under the HMGP Florence program. Five companies provided bids for this project. Due to time constraints, it is recommended that the award go to the second-lowest bidder, Barfield's Backhoe, for the amount of \$32,220.00.

Staff recommends awarding the demolition contract for HMGP Florence Group 3 to Barfield's Backhoe for \$32,220.00

B. HMGP Florence Bid Award Group 4

On November 18, 2024, at 3:00 pm, bids were received for the demolishing of 3 homes acquired under the HMGP Florence program. Four companies provided bids for this project. Finesse Builders Inc. was the lowest bidder in the amount of \$17,250.00.

Staff recommends awarding the demolition contract for HMGP Florence group 4 to Finesse Builders Inc. for \$17,250.00.

C. Adopt a Resolution Declaring Personal Property Surplus to the Needs of the City and Disposition of Said Property to be Auctioned - Holt Moore, City Attorney

Attached is a Resolution Declaring Personal Property Surplus to the Needs of the City and Disposition of Said Property to be auctioned on December 27, 2024, at Lloyd Meekins & Sons Auction Company.

Adopt a resolution declaring the personal property to be surplus to the needs of the City and authorizing disposition of the property as proposed.

D. Approve the Designation of \$100 of CRF to Lumberton Police Officers Christmas Party - Owen Thomas, City Council

Councilman Thomas would like to designate \$100 to the Police Officers Christmas Party to be held at Robeson Community College on December 14th. Funds were given as designated below:

P1 - \$100 P2 - \$50 P3 - \$100 P4 (was called) \$100 P5 - \$50 P6 - \$50 P7 - \$100 P8 - \$100 and the Mayor (via City Attorney Holt) \$100.00 for a total of \$750.00

E. CDM Smith PFAS contract award - Rob Armstrong, Public Works

Director Armstrong stated that Council previously selected CDM Smith for the award of the PFAS study project for the Water and Wastewater Treatment Plants.

Public Works recommends council approval of the scope and fees associated the water plant PFAS study.

Councilman Cantey asked about the levels that are exceeding the range and what will this study do to control this. Director Armstrong stated that the levels are exceeding the range. He stated that this \$159k will address the levels but will not fix them, but it will tell us what method we need to use to remove PFAS. He stated that there will be no test treatment until Phase 1 of the study is complete, that would reverse osmosis treatment.

F. Raw Water Generator Automatic Transfer Switch - Rob Armstrong, Public Works

Council previously approved a capital item for the replacement of the automatic transfer switch (ATS) for the raw water intake generator in the amount of \$50,000.

Public works requested pricing from Sanford Electrical Contractors who were the electrical subcontractor that performed the recent upgrades to the raw water intake

system. The ATS was the only part of the raw water intake electrical system that was not updated during that project.

Public Works recommends council approval of the purchase of a new ATS for the raw water intake system from Sanford Electrical Contractors in the amount of \$36,079.98 with funds being made available from the capital budget code 60-00-8220-5860.

IV. Adjournment

Lumberton City Council

Item: III.B.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Manager

Submission Date: 12/05/2024

Subject: Ratify the Designation of \$2,000 to Rutherford County

Summary/Background of Subject Matter:

Rutherford County was affected by Hurricane Helene. The damage from the storm had a huge and devastating impact across that county. Rutherford's Sheriff's Department work hard to provide for their youth at Christmas with programs such as "Shop with the Sheriff" and other local Law Enforcement agencies, but they have been delayed in fund-raising efforts due to the ongoing recovery from the storm. The county consists of several smaller communities and some have very underprivileged families, and any donation of toys will have a huge impact on their lives. A poll was conducted on December 4th, 2024 with the following donations made:

P1 - \$250 P2 - \$200 P3 - \$500 P4 - \$450 P6 - \$100 P7 - \$300 P8 - \$100 and \$100 from the Mayor's discretion fund for a total of \$2,000.

Staff Recommendation:

Ratify the designation of \$2,000 of Community Revitalization Funds as indicated above.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: City Manager

ATTACHMENTS:

None

Lumberton City Council

Item: III.C.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Legal

Submission Date: 12/05/2024

Subject: Ratify the Change Order Amendment to the Carolina Civic Center Annex Project

Summary/Background of Subject Matter:

Staff has been presented with a request for a group of change orders on the Civic Center Annex project. The net outcome of this request is not a charge or debit but a *credit* to the City of \$46,645.71. As allowed by state statute, Section 115.00 of the City Policy Manual provides that the City Manager has been delegated with the authority to enter into contracts that do not exceed \$5,000.00. I believe it is a reasonable interpretation of this provision of the Manual that the Manager can approve contract *amendments* which do not exceed \$5,000, which would include any amendment that brings money *back to* the City. If anyone disagrees with this interpretation, please let me know. However, in an abundance of caution, since this is a case of first impression with these exact facts, we are bringing this request to you for your approval. The list of change orders is attached.

Staff Recommendation:

Ratify the Change Order amendments as indicated above.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Legal

ATTACHMENTS:

None

Lumberton City Council

Item: IV.A.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Police

Submission Date: 12/18/2024

Subject: Permission to Accept the 2024 Edward Byrne JAG Grant

Summary/Background of Subject Matter:

The Lumberton Police Department applied for the Edward Byrne (JAG) Grant in November 2024. The Lumberton Police Department has received this grant and is asking for permission to accept the grant in the amount of \$25,464.

Staff Recommendation:

That City Council grant the LPD permission to accept the Edward Byrne (JAG) grant.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Police

ATTACHMENTS:

None

Lumberton City Council

Item: IV.B.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Police

Submission Date: 01/07/2025

Subject: Lumberton Police Department is requesting permission to apply for AKC Reunite Grant

Summary/Background of Subject Matter:

The Lumberton Police Department is requesting permission to apply for the AKC Reunite Grant in the amount of \$12,000.00. This grant will allow the department to purchase a canine which will be deployed for incidents of breaking and entering, traffic stops, evidence searches, tracking victims and/or suspects, and apprehending violent criminals.

Staff Recommendation:

It is recommended that the Lumberton Police be granted permission to apply for the AKC Reunite Grant in the amount of \$12,000.00.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Police

ATTACHMENTS:

None

Lumberton City Council

Item: IV.C.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Police

Submission Date: 01/07/2025

Subject: Lumberton Police Department is requesting permission to retire K-9 Ares

Summary/Background of Subject Matter:

The Lumberton Police Department requests permission to retire K9 Ares due to his age and inability to perform law enforcement duties. It is recommended that Ares be retired and sold to his handler, Lt. Jonathan Smith for one dollar (\$1.00).

Staff Recommendation:

It is recommended that Ares be retired and sold to his handler, Lt. Jonathan Smith for one dollar (\$1.00).

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Police

ATTACHMENTS:

None

Lumberton City Council

Item: IV.D.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Police

Submission Date: 01/07/2025

Subject: Installation of Stop Signs - Intersection of 13th Street and Willis Avenue

Summary/Background of Subject Matter:

Councilman Carroll is requesting the approval of a four-way stop at the intersection of 13th Street and Willis Avenue. Many complaints have been received concerning speeding in this area.

Staff Recommendation:

Approve the recommendation that a four-way stop be erected at the intersection of 13th Street and Willis Avenue.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Police

ATTACHMENTS:

None

Lumberton City Council

Item: IV.E.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Fire

Submission Date: 12/20/2024

Subject: Request to purchase Fire Engines

Summary/Background of Subject Matter:

Lumberton Fire Department was granted capital funding for the purchase of a fire engine to replace Engine 2 (2009 Pierce) and remove Engine 4 (1996 Pierce) from the fire department fleet. The fire department would like to request permission to purchase a second fire engine to replace Engine 3 (2010 Pierce) and remove Engine 5 (2002 Pierce) from the fleet.

The increase in apparatus maintenance costs due to fleet age has prompted my request to purchase a second fire engine. The fire department reached out to vendors to find available (stock) units due to apparatus build times ranging from 8 to 36 months. Vendor MES has two units available for immediate delivery.

Staff Recommendation:

The Lumberton Fire Department would like to recommend that council approve the purchase of two fire engines for the Lumberton Fire Department from MES at the cost of up to \$750,000 each, with a max budget of \$1,500,000. The engines offered by MES meet contract pricing and procurement standards. They are offered under the Sourcewell Procurement Program.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Fire

ATTACHMENTS:

None

Lumberton City Council

Item: IV.F.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Manager

Submission Date: 01/07/2025

Subject: Facade Grant Program Allocation Increase

Summary/Background of Subject Matter:

The downtown Facade Grant Program was established to encourage property owners to enhance the aesthetic appeal of their buildings, thereby improving the overall appearance of our community and stimulating local economic development. Since its inception, the program has successfully funded numerous projects that have revitalized downtown areas and increased property values.

The demand for downtown facade improvement grants has significantly increased over the past year, with many property owners expressing interest in participating in the program. However, the current funding allocation will be insufficient to meet this growing need, leading to applications being deferred or rejected.

To address this issue, we propose an increase in the Facade Grant funding from \$30,000 to \$50,000. This increase will allow us to support more projects, enhance the visual appeal of our historic commercial district, and foster economic growth. Improved facades can attract more customers, leading to increased sales for local businesses. The enhanced building appearances contribute to a more vibrant and appealing community. Well-maintained properties tend to appreciate in value, benefiting property owners and the city's tax base.

The proposed increase will require an additional allocation of \$20,000 from the city budget.

City Staff and Main Street Lumberton Advisory Board members will be approaching the county in February with an ask of \$50,000. We feel as if the City's initiative to increase our Façade Grant allocation will stimulate and encourage the county and other dedicated entities to participate and contribute.

Staff Recommendation:

City Staff and Main Street Lumberton Advisory Board recommend City Council approve the proposed increase in Facade Grant funding as an economic development incentive to better serve our community, support local businesses, and catalyze downtown revitalization.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City

Department: City Manager

Clerk

ATTACHMENTS:

None

Lumberton City Council

Item: IV.G.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Manager

Submission Date: 01/08/2025

Subject: Approval of Main Street Lumberton Advisory Board Member

Summary/Background of Subject Matter:

The general purpose of the Main Street Lumberton Advisory Board is to serve as an advisory committee to City Council for the purposes of facilitating the implementation of the Comprehensive Downtown Master Plan and the 4-Point Main Street Approach.

With City Council approval, Main Street Lumberton would like to appoint Mica Walcott as our new Advisory Board Member. Mica is an entrepreneur and dedicated community member with a passion for fostering growth and connection in Lumberton. As an active volunteer and small business supporter, Mica is committed to revitalizing downtown and promoting initiatives that benefit residents and local businesses.

With a focus on collaboration and innovation, Mica is excited to contribute to making downtown Lumberton a vibrant and thriving hub for everyone.

Mica's enthusiasm for the City of Lumberton and downtown as well as her areas of expertise make her a great fit for the Main Street Lumberton Advisory Board.

Staff Recommendation:

City Staff and Main Street Lumberton Advisory Board are recommending City Council Approval of Mica Walcott as a new advisory board member for Main Street Lumberton.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: City Manager

ATTACHMENTS:

None

Lumberton City Council

Item: IV.H.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Public Works

Submission Date: 01/02/2025

Subject: Engineer Selection for the Rosewood Drive Drainage Project

Summary/Background of Subject Matter:

Staff Recommendation:

In December Public Works received qualification statements in response to our RFQ for the Rosewood Drive Drainage Project. Three engineering firms submitted qualifications statements: Anderson Engineering, Catlin Engineers and The Wooten Company. We have worked with each of these firms on past successful projects. Public Works is recommending the selection of Anderson Engineering as the design engineer for this project based mostly on their knowledge of the specific problem area and prior preliminary investigative efforts. If Council awards the selection to Anderson Engineering, Public Works will negotiate a scope of work with a proposed fee and bring a final agreement back to Council for approval.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Public Works

ATTACHMENTS:

1. Anderson Engineering Rosewood Drive Drainage Project-RFQ
2. Lumberton - Rosewood Drive Drainage Project WOOTEN
3. Rosewood Drive SOQ_CATLIN

CITY OF LUMBERTON
NORTH CAROLINA

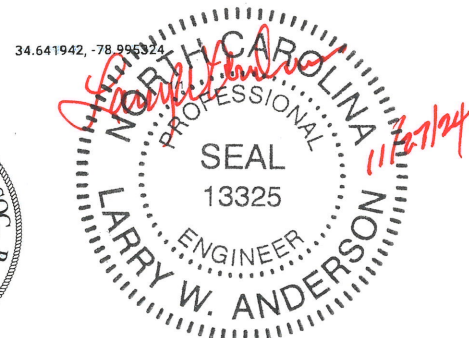
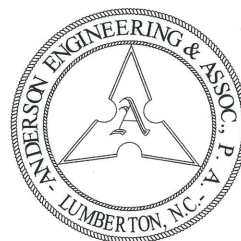
REQUEST FOR QUALIFICATIONS (RFQ)
ROSEWOOD DRIVE DRAINAGE PROJECT

FOR QUALIFIED PROFESSIONAL ENGINEERING
AND ARCHITECTURAL SERVICES



ROKMAPS™
(https://www.roktech.net/ROKMAPS_Robeson/)

Anderson Engineering & Assoc., PA
11/25/2024





**NORTH CAROLINA BOARD OF EXAMINERS
FOR ENGINEERS AND SURVEYORS**
4601 Six Forks Rd Suite 310
Raleigh, North Carolina 27609

Anderson Engineering & Associates, P.A
PO Box 1736
Lumberton, NC 28359

This is to Certify that:

Anderson Engineering & Associates, P.A is licensed with the North Carolina Board of Examiners for Engineers and Surveyors, and is authorized to practice **engineering and land surveying** under the provisions of Chapter 89C and 55B of the General Statutes of North Carolina.

This authorization must be renewed annually, and expires on June 30, 2025

License No. : C-0793



**THE NORTH CAROLINA BOARD OF
EXAMINERS FOR ENGINEERS
AND SURVEYORS**

Executive Director

POST IN PLACE OF BUSINESS

Issued 06/06/2024

Telephone
(919) 791-2000

FAX
(919) 791-2012

EMAIL Address
ncbels@ncbels.org

WEB Site
www.ncbels.org

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Firm's General Information

Firm's Certificate of Insurance

Anderson Engineering & Assoc., PA has the following Business Owner's Policy Limits of Coverage:

Limit General Aggregate	\$	2,000,000
Products/Completed Operations Aggregate Limit	\$	INCLUDED
Bodily Injury and Property Damage Liability – Each Occurrence Limit	\$	1,000,000
Personal and Advertising Injury – Each Incident Limit.....	\$	1,000,000
Medical Payments – Each Person Limit.....	\$	5,000
Damage to Premises Rented to You – Any One Premises Limit, All Perils	\$	1,000,000
Errors and Omissions Liability:	\$	1,000,000

PROBLEM STATEMENT

Rosewood Drive is experiencing poor drainage during high intensity storm events due to undersized and inefficient pipe systems. The street is constructed utilizing 24" curb and gutter with a series of curb inlets and a network of storm drainage pipes. The target area at or about 3530-3580 Rosewood Drive, has two curb inlets with smaller undersized pipes and an inefficient discharge toward the east. Localized flooding in the area occurs due to these conditions. We have completed investigations to eliminate the localized flooding by exploring different drainage discharge points. Pursuant to our investigations as well as the Public Work Departments reviews, a route to the west appears to be the most feasible option to correct the issue without over taxing the local existing drainage systems. This option will be hydraulically analyzed to verify the initial thoughts about discharge points.

SCOPE OF WORK

The scope of work for the Rosewood Avenue drainage project will include surveying efforts, preliminary designs, hydraulic analysis, final designs providing construction documents, procurement efforts, construction efforts, and final closeout documents.

We will be utilizing Surveying and Mapping, LLC (SAM) for the surveying efforts on this project. SAM's local office is managed by John Kaukola, PLS. (See resume) Surveying efforts will obtain horizontal and vertical data of existing features of the target project, set controls, as well as as-built data. Utilizing the surveying information from SAM's efforts, preliminary designs and hydraulic analysis using Autodesk Civil 3D Software will be completed. The designs will be reviewed and approved by the City of Lumberton before final construction plans and specifications are undertaken. Preliminary budget can be developed at this point. Upon approval of all documents, AE&A will work with the City on procurement efforts based upon their policies and procedures. Once a contract for construction is issued, AE&A will hold preconstruction efforts, issue Notice to Proceed and manage the construction phase. At the end of project construction, as-built data will be produced for the owner's use.

PROJECT SCHEDULE

A final project schedule is not possible at this stage. A preliminary project schedule is proposed below and will be adjusted along the life of the project.

Preliminary Project Schedule

Profession services procurement.....	February 2025
Surveying efforts for preliminary design.....	April 2025
Preliminary project design.....	June 2025
Final construction documents for procurement.....	August 2025
Procurement efforts for construction	October 2025
Construction Phase, 9 months	August 2025
Closeout Documents.....	October 2026

HOURLY RATE SCHEDULE

ENGINEERING DESIGN SERVICES-ANDERSON ENGINEERING & ASSOC., PA

Hourly Rate for Services Rendered

Principal Engineer	\$ 135.00/hour
Associate Engineer	\$ 120.00/hour
Staff Engineer	\$ 110.00/hour
Engineer Tech III (> 10 years Experience)	\$ 105.00/hour
Engineer Tech II (5-10 years Experience)	\$ 100.00/hour
Engineer Tech I (< 5 years Experience)	\$ 85.00/hour
Professional Land Surveyor-One Man	\$ 125.00 hour
Professional Land Surveyor -Two Man	\$ 145.00 hour
Professional Land Surveyor -Three Man	\$ 175.00 hour
CAD Designer III (> 10 years Experience)	\$ 95.00/hour
CAD Designer II (5-10 years Experience)	\$ 75.00/hour
CAD Designer I (< 5 years Experience)	\$ 65.00/hour
Project Manager	\$ 110.00/hour
GIS Manager	\$ 95.00/hour
Construction Inspector	\$ 75.00/hour
Administrative/Secretary	\$ 45.00/hour
Mileage	\$ 1.65/mile
Outside Professional Services	125% of cost

Effective October 22, 2024
Last revised: April 1, 2024



Project Overview

In support of proposed site development, Surveying And Mapping, LLC (SAM) proposes to provide professional surveying, to include Topographic Surveys, Lumberton.

Rate Schedule

STANDARD RATE SCHEDULE RALEIGH & COLUMBIA 2024

SURVEY OFFICE PERSONNEL RATES:

Office/Department Manager	\$265.00 per hour
Senior Project Manager	\$230.00 per hour
Project Manager	\$190.00 per hour
Staff Surveyor	\$165.00 per hour
Phase Manager	\$150.00 per hour
Project Coordinator	\$135.00 per hour
Senior Office Technician	\$125.00 per hour
Office Technician	\$120.00 per hour
Project Specialist	\$95.00 per hour
Administration / Clerical Support	\$90.00 per hour

SURVEY FIELD CREW RATES:

Field Ops Manager	\$160.00 per hour
Field Coordinator/Supervisor	\$125.00 per hour
One (1) Person Survey Field Crew	\$115.00 per hour
Two (2) Person Survey Field Crew	\$195.00 per hour
Three (3) Person Survey Field Crew	\$255.00 per hour
Additional Rodperson or Flagperson	\$70.00 per hour

SURVEY EQUIPMENT RATES:

GPS Receiver	\$10.00 per hour
Robotic Total Station S-7	\$20.00 per hour
Robotic Total Station S-9	\$20.00 per hour
SX-10	\$35.00 per hour
Tier 1 HDS Scanner (BLK360 & Faro)	\$33.00 per hour
Tier 2 HDS Scanner RTC 360	\$60.00 per hour
Tier 3 HDS Scanner Leica P20, P40, P50	\$312.00 per hour
Digital Level	\$5.00 per hour
UTV	\$25.00 per hour

SAM COMPANIES

2641 Sumner Boulevard / Suite 116 / Raleigh, NC 27616
919-878-7466 Office
NCBELS License No. F-1442

sam.biz



Aluminum Boat	\$15.00 per hour
Echo Sounder –Remote Controlled Boat	\$25.00 per hour
Echo Sounder-Sonarmite	\$9.25 per hour
VM810 Survey	\$5.75 per hour
RD8000 Survey	\$11.50 per hour

STANDARD RATE SCHEDULE
RALEIGH & COLUMBIA 2023

Effective January 2024

OTHER DIRECT RATES:

Lodging/Per Diem*	GSA
Mileage	\$0.93 per mile
Additional Vehicle (plus mileage)	\$20.00 per hour
Environmental Supplies	\$25.00 per day
Recording Fees	At Cost plus 10%
Permitting Fees	At Cost plus 10%
Third-Party Traffic Control	At Cost plus 10%
Metered Water	At Cost plus 10%
Backfill Material	At Cost plus 10%
Spoils Disposal	At Cost plus 10%
Coring	At Cost plus 10%
Document Reproduction	At Cost plus 10%
Records Collection Fees	At Cost plus 10%
All other services not described	At Cost plus 10%

NOTES:

*Per Diem based on GSA rates and may change depending on location and availability of accommodations. This is a general practice and used for estimating purposes.

All holiday, travel, per diem, etc., and all additional items not listed herein shall only be permitted where approved by Company in writing and in advance for any particular project.

Overtime Rates:

The Overtime Rate for Field Crew shall be computed at 1.5 times the hourly rate in excess of 9 hours per day.

Travel & Subsistence:

SAM COMPANIES

2641 Sumner Boulevard / Suite 116 / Raleigh, NC 27616
919-878-7466 Office
NCBELS License No. F-1442

sam.biz



All travel and subsistence expenses for personnel are invoiced at GSA Rates or as allowed by the Client contract. Cost of mileage on company-owned vehicles is computed at \$0.93 cents per mile.

Purchased Services:

All purchase services are invoiced at actual cost plus ten percent (10%) administrative fee. These include but are not limited to reproduction, computer time, long distance telephone, consultants, subcontract services, rented or leased equipment, expendable supplies, and project required special supplies.

Taxes:

Any state/local sales tax or gross receipts tax, if applicable to the services provided, are in addition to the hourly rates and will be applied on the invoice for services.

Labor Rate Adjustment:

The Schedule of Rates will remain in force for a twelve (12) month period from the effective date of utilization and subject to an escalation on each "twelve (12) month anniversary date" unless otherwise agreed to by Client contract. The escalation rate shall be the most recent 12-month Employment Cost Index (ECI) as published by the United States Department of Labor (DOL), Bureau of Labor Statistics. In no event shall the next twelve (12) month Schedule of Rates be less than the prior period.

Administrative Fee:

A fee equal to five percent of labor will be charged for technology and database management support.

SAM COMPANIES

2641 Sumner Boulevard / Suite 116 / Raleigh, NC 27616
919-878-7466 Office
NCBELS License No. F-1442

sam.biz

PROPOSAL CONTENT

1. Technical approach/understanding of the program

As previously addressed, the technical approach to be undertaken for the Rosewood Drive Drainage Project will include a full topographic survey locating existing features, including utilities, along the project route. We will also utilize existing topographic information to delineate watersheds and major drainage features. Upon completion, a preliminary set of drawings will be developed and the proposed improvements will be hydraulically analyzed utilizing the AutoCAD Civil-3D hydraulics software. Analysis will identify hydraulic grade lines, energy lines as well as storm pipe parameters. Preliminary documents will be submitted for internal reviews as well as owner review and approval. Pursuant to preliminary responses, final plans with details will be developed. Once plans are approved, final construction documents will be generated. Below are the task and team members associated with them.

2. Work Management Plan

A-Completion of Final Design

<i>Task</i>	<i>Team Members(see section of project experience)</i>
Surveying	Surveying and Mapping, LLC (SAM)
Preliminary design	Larry Anderson, Renee Taylor, Dwayne Johnson
Hydraulic analysis	Larry Anderson, Renee Taylor
Final Design Plans	Larry Anderson, Renee Taylor, Dwayne Johnson, Daniel Anderson
Final Construction Documents	Larry Anderson, Renee Taylor, Dwayne Johnson, Daniel Anderson, Revonda Lowery

B-Bidding and Negotiation Services

Procurement efforts will be completed by our staff in accordance with the City's policies. The project will be properly advertised, bids will be received, award recommendations will be made, and contracts will be awarded.

C-Construction Administration

<i>Task</i>	<i>Team Members</i>
Notice of Award	Larry Anderson, Renee Taylor, Revonda Lowery
Contract document execution	Larry Anderson, Renee Taylor, Revonda Lowery
Project scheduling meetings	Larry Anderson, Renee Taylor
Payment request efforts	Larry Anderson, Renee Taylor, Revonda Lowery
Final document phase	Larry Anderson, Renee Taylor, Revonda Lowery
Project closeout phase	Larry Anderson, Renee Taylor, Revonda Lowery

D-Construction Observation Services

<i>Task</i>	<i>Team Members</i>
Preconstruction Conference	Larry Anderson, Renee Taylor, Dwayne Johnson
Weekly progress meetings and reports	Larry Anderson, Renee Taylor, Revonda Lowery
Monthly payment processing	Larry Anderson, Renee Taylor, Revonda Lowery
Record Information	Larry Anderson, Renee Taylor, Dwayne Johnson
Project closeout phase	Larry Anderson, Renee Taylor, Revonda Lowery, Dwayne Johnson

2. Work Management Plan/Experience of Proposed Personnel

Staff Resumes

Larry W. Anderson, P.E.
Principal Engineer
andersonengineeringpa@gmail.com

Education:

North Carolina State University
Bachelor of Science in Civil Engineering
Graduated: December 1981

Experience:

March 1990 to Present
Anderson Engineering & Associates, P.A., Consulting Engineers, President

- Responsible for the complete satisfactory execution of innovative and proven ideas applied to the municipal and private engineering fields
- Experienced in municipal and private sectors for a total of 43 years either as a consultant or contractor

January 1985 to May 1990
Koonce, Noble & Associates, Inc., Project Engineer

- Design and construction of projects including:
Subdivisions, Sanitary Sewer System Improvements, Water System Improvements (including county-wide water systems), Storm water Design, Recreational Facility Construction, Street Improvements Design & Construction, and Community Development Block Grant Projects

February 1982 to January 1985
City of Whiteville, North Carolina, City Engineer

- Performed technical and administrative work in planning and directing the overall activities of the Public Works, Planning (including CDBG and State Recreation Grants) and Inspection, and the Construction Departments

December 1981 to February 1982
Pierson and Whitman, Inc., Raleigh, North Carolina, Design Engineer

- Design of water distribution systems for:
Subdivisions
Water districts
Industrial Developments

May, 1980 to August 1981
Law Engineering Testing Company, Raleigh, North Carolina

- Engineering testing by:
Radiography, Destructive Testing, Dye Penetrate Testing, Magnetic Particle Testing

Registration:

State of North Carolina, Professional Engineer, 13325
State of South Carolina, Professional Engineer, 11492

Daniel W. Anderson, P.L.S.
dwanderson85@hotmail.com

Summary of Qualifications:

- Strong background in boundary, topographic, and construction surveying
- Expertise in conventional and GPS surveying techniques as well as drafting
- Provides engineering survey information and assists project teams throughout the design process

Professional Registration:

- *North Carolina Licensing Board for Engineers and Land Surveyors*
- Registered Professional Land Surveyor, L-5130

Education:

- Studied surveying at Fayetteville Technical Community College
- *Lumberton High School, Lumberton NC*
- Graduated 2003

Professional Experience:

2008 – Present

Anderson Engineering & Associates, P.A.

- Gained progressive surveying experience obtain Professional Surveyor Licensure
- Engineering survey to obtain topographic data, utility locations, and as-built Information
- Building measurements for proposed renovations and additions
- Elevation certificates and flood hazard studies
- Manage a field crew of two (2) people
- Manage survey schedule to meet project deadlines

2005 – 2008

M.A.P.S. Surveying, Inc.

- Gained progressive surveying experience from rod man to field crew chief
- Managed field crew of three (3) people
- Field data collection, uploading of said data and drafting of said data
- Deed research for prospective jobs and planning for field crews

Notable Projects:

- NCDOT Roadway Projects – Construction Staking
- UNCP South Campus Water System Improvements – Site Topo
- NC Renewable Chip Site – Site Topo, Construction Staking
- Emereau Charter School Phase I and Phase II – Site Topo, Construction Staking
- Various Borrow Pits – Staking
- Street Widening Project for Lumberton Housing Authority- Topo and Site layout
- Pembroke Lumbee Guaranty Bank – Site Topo
- Conway Trucking Distribution Center – 25 Acre Distribution Hub Site layout
- Campbell Soup-Spray Field B Expansion- Site Layout and as-built
- Kayser Roth - 100,000 sq. ft. Expansion Topo and Elevation Certificate
- Lumberton Golden Corral - Site Layout
- Campbell Soup- Boundary Survey of 185 Acres on Modest Rd
- WalMart Neighborhood Market St. Pauls – Construction Staking

Renée Taylor, *Engineering Technician III*
arwarren68@gmail.com

Summary of Qualifications:

- Strong background in Autocad Civil 3D 2010-2018
- Familiar with local and state codes, regulations, and design manuals
- Technical advisor to the entire staff in the use of CAD, Microsoft Office, & McAfee Virus Software

Education:

- Douglas Byrd Senior High School, Fayetteville, NC **June 1986**
Diploma
- Fayetteville Technical Community College **June 1988**
AAS in Commercial Art and Advertising Design
- Civil Engineering Technology curriculum* **Aug 2005 – May 2009**

Professional Experience:

Anderson Engineering & Associates, P.A., **May 1995 – Present**
Engineering Technician

- Design and prepare detail electronic (CAD) construction plans and/or scaled drawings from simple to complex projects.
- Collect relevant information from local and state codes required to develop site, utility, erosion control, roadway, subdivision, and other civil drawings.
- Prepare site, grading, erosion control, water systems, sewer systems, storm drainage systems as required by the client and local and state agencies to be used in construction.
- Prepare plan and profile drawings of water, sewer and storm drainage systems to be used in the process of local and state agency reviews/approvals and construction.
- Perform calculations necessary for site grading earthwork, erosion control, Phase II stormwater, water, sewer, storm drainage to be used in the process of local & state agencies review/approvals and construction.
- Develop specifications and procurement documents as needed for individual projects.
- Verify accuracy and completeness of finished drawings.
- Prepare "Record Drawings" of completed projects for clients, local and state agencies, and company files.
- Ensure proper usage of professional seal & support staff

BB&T (formerly Southern National Bank) **1993 – May 1995**
Graphic Designer

- Desktop publishing for corporate including: Designed and typeset Marketing brochures, statement stuffers, advertisements, departmental brochures and booklets, and presentations for Executive Management, board meetings, and specific departments
- Worked extensively with Chief Executive Officer, Chief Financial Officer, and Chief Operating Officer on various presentations that were given in North Carolina, the Northeastern region including Wall Street and Boston, as well as, Europe
- Design and create color slides in-house
- Ensure proper usage of Corporate Logo, Graphic Standards, and Business Reply Mail postal regulations

Certifications and Other Achievements

- Level III: Designer of Erosion and Sedimentation Control Plans – 2016 – 2025
- Civil Engineering Technology Curriculum Completed:
 - Statics/Strength of Materials
 - Physics - Mechanics
 - Survey I & II
 - Hydraulics and Hydrology
 - Environmental Planning
 - Calculus/Algebra/Trig

Dwayne Johnson
CAD Technician
djohnson.ae@gmail.com

Education:

West Robeson Senior High School – Pembroke, NC
Graduated 1985

Richmond Technical College – Hamlet, NC
Graduated 1986
One year course in Architectural Drafting

Experience:

July 24, 1995 – Present

Anderson Engineering & Associates, PA
Lumberton, NC

- Experienced in AutoCAD Civil 3D 2010.
- Duties include the following:
Research local and state codes required to develop site, utility, erosion control, roadway drawings.
Prepare drawings for local and state agency permitting to be used during construction.
Prepare plan and profile drawings for local and state agency reviews/approvals and construction.
Perform calculations as required for local & state agencies review/approvals and construction.
Verify accuracy and completeness of finished drawings.
Prepare “Record Drawings” of completed projects

July 1987 – July 1995

John M. Ivey Land Use Planning and Surveying
Hope Mills, NC

- Experienced in AutoCAD, DCA, Release 10.
- Duties included preparing closing maps, foundation maps, plot plans, subdivision plats for recordation, and legal descriptions; preparing paving, water, and sewer drainage and soil erosion control plans; and assisting new employees in acquiring Autocad skills

October 1986 – July 1987

Davis, Martin and Powell Engineering and Land Surveying
High Point, NC

- Responsible for pencil, pen, and ink drawings of closing maps, foundation maps, plot plans, and subdivision plats.

References:

Available Upon Request

Revonda Lowery, Administrative Assistant
revonda.lowery@yahoo.com

Summary of Qualifications

- Advanced skills with Microsoft Office 365, QuickBooks Premier Professional Services Edition 2020, and Windows 10
- Provide administrative and clerical support
- In-depth knowledge of typing correspondence, reports, and other documents
- Skilled in prioritizing and completing tasks independently and on time

Work Experience

*Administrative Assistant, **Anderson Engineering & Assoc.**, Lumberton NC* **2019 - present**
1999 – 2010

- Manage receptionist area including greeting visitors and responding to telephone and in-person requests for information
- Maintain electronic and paper files
- Prepare payroll
- Create monthly and quarterly reports for Certified Public Accountant
- Control incoming and outgoing mail correspondence
- Input staff project data in QuickBooks, creating Invoices
- Prepare items for shipment

*Legal Secretary, **Cabell Regan Attorney, PA**, Lumberton NC* **May 1999-Nov 1999**

- Managed receptionist
- Greeted clients
- Transcribed confidential Dictaphone confidential criminal and civil litigations
- Filed legal documents
- Created forms
- Scheduled appointments

Education

University of North Carolina at Pembroke, Pembroke NC, December 2020
Bachelor of Science in Business Administration- Management

Robeson Community College, Lumberton NC, 2001
Associates Degree- Office Systems Technology

Lumberton Senior High School, Lumberton NC - Diploma

3. Experience of the Firm

Anderson Engineering & Associates, P.A. was founded in 1990 by Larry W. Anderson to provide complete and comprehensive civil engineering consulting services to southeastern North Carolina and northeastern South Carolina. Our company has completed over 2100 projects in North and South Carolina with a wide range of clients.

We utilize AutoCAD Civil 3D software to develop and produce project drawings. Additionally, we use Avitru SpecText Specification software to produce specifications which are tailored to each specific project. Since all services offered utilize the latest in computer technology, we can produce highly accurate and expedient results at competitive rates. Our staff has been charged with the task to produce cost-effective alternatives for our clients' needs and objectives.

Our experience shows that we have the ability to provide comprehensive Civil Engineering Services for projects of various sizes with the most economical design/construction methods possible, based upon sound, proven engineering judgment, and cutting-edge technology.

Services Provided

Anderson Engineering & Associates, P.A. offers a full-service package to each prospective client so that each project can be individualized according to the client's need and /or budget. Our team strives to provide our clients with the highest quality product within the time frame and budget specified.

Our experience includes, but is not limited to:

- *Municipal, Private, & Commercial clientele*
- *Site planning – Sanitary Sewer, Water*
- *Stormwater collection & treatment systems*
- *Phase II Stormwater*
- *Sanitary Sewer collection systems*
- *Lightweight structural design & planning*
- *Water Distribution Extensions*
- *Land Surveying*
- *Field Data Collection*
- *Construction Staking*
- *Elevation Certificates*
- *Contract administration & Mgmt.*
- *Industrial facility expansions*

Equipment and Facilities

- *Autodesk Civil 3D 2010/2018 software*
- *Avitru SpecText Specification software*
- *Microsoft Office*
- *Hi-Speed cable internet w/cloud data storage*
- *GNSS GPS survey equipment*
- *Conference room (capacity 15 people)*
- *2,100 sf office building*
- *Located near downtown Lumberton*
- *Close proximity to City Hall, courthouse*
- *In-house full size prints, copies and scans*

4. Familiarity with Locality

Municipal Projects

Lumberton Housing Authority

Elevation Certificates, site planning, street and drainage designs

City of Lumberton: Northeast Park Phase I & II

Robeson County Administration Building, Lumberton, NC Site Planning

City of Lumberton: Bike and Pedestrian Trail

Robeson County 911 Center, Lumberton, NC Building Renovations Completed July 2018, storm drainage management

Lumberton Rescue & EMS-Site Improvements

Robeson County Department of Social Services – Lumberton, NC Countywide DSS Facility (150,000 Sq. ft.), Site Development Package (30 acres)

City of Lumberton- Land Clearing and Inert Debris (LCID)

Robeson County Emergency Operations Center, Lumberton NC-Office Complex for Emergency Operations, E-911, and Sheriff's Office Site Development Package (3 acres)

City Of Lumberton - Ivey's Branch Watermain Extension

Private Commercial Development Projects

NC Renewable Chip Facility – Lumberton, NC Site Planning, Erosion Control, Utilities, Roadway Design, and Storm drainage for chip processing site including elevation certificates

Springhill Suites-N. Fayetteville Road
Site and storm drainage planning

Lumberton ABC Board-106 Farmbrook Drive
Site and storm drainage planning

UNC Health-Gibson Cancer Center
Site and storm drainage planning

Traffic Control Safety-Lay Down Yard (20.6 ac tract) W.5th St.-Site & storm drainage planning

UNCH Health-Health Park, Dawn Drive
Site and storm drainage planning

Robeson Kiwanis Childrens Foundation-Pennington Park Playground-Site and storm drainage planning

Private Residential Development Projects

Hurricane Matthew Renovations and Elevations/Retrofit

Residential properties in Lumberton and Robeson County

Universities & Colleges

Robeson Community College:

Emergency Services Training Facility – Site and storm drainage Improvements Main Campus Site Planning

UNCP- Gas Main Watermain

Robeson Community College Work Force Center-site and storm drainage planning

UNCP-streets, storm drainage improvements, utility designs

PERSONNEL QUALIFICATIONS AND RESPONSIBILITIES

Larry W. Anderson, PE is the owner and Principle Engineering for Anderson Engineering & Assoc., PA (AE&A). He is a graduate of NC State University with a Bachelor of Science in Civil Engineering. He is a registered Professional Engineer in NC and SC. His responsibilities' include client liaison, contract negotiations, project administration, and technical review. He will be responsible for providing the City of Lumberton with a weekly status report; keeping all up to date of any changes to regulations and advise the City of Lumberton on compliance and implementation. Mr. Anderson is responsible for the timely execution of each facet of work in the field under this contract.

Daniel W. Anderson, PLS is a licensed Professional Land Surveyor. He currently manages a two-man survey crew and project schedule. He is responsible for any Topographical survey, construction Staking, and Elevation Certification as required by the project. He is NCDOT Level III certified, as well as, NCDOT certified Survey Contractor.

Renee Taylor, Engineering Technician has been employed with AE&A for 29 years. She has an Associate of Applied Science degree in Graphic Design from FTCC and has completed much of the Civil Engineering curriculum, as well. She has extensive knowledge of AutoCAD Civil 3D Software, local and state codes, regulations, and design manuals, and is NCDOT Level III certified. Her responsibilities include design and prepare site, grading, erosion control, water, sewer, and storm drainage plans, calculations, and specifications as required for each project. She serves as a technical advisor to the entire staff in the use of CAD software, Microsoft Office software, Avitru Spectext specifications, virus, and spam security and internet issues.

Dwayne Johnson, CAD Designer III has been employed with AE&A for 29 years. He graduated from Richmond Technical College in Architectural Drafting. He is experienced in AutoCAD Civil 3D 2010 and uses his expertise to design and prepare details plans/drawings. He is familiar with local and state codes, regulations, and design manuals. He assists the surveying staff as needed.

Revonda Lowery, Office Manager has been currently employed with AE&A for 15 years overall. She has a Bachelor of Science degree in Business Administration-Management from UNC-Pembroke. She is experienced in QuickBooks and Microsoft Office and Excel. She assists the engineer and staff with correspondence, invoicing, account payable and receivables, and payroll. She imports staff's accounting timesheets and creates invoices using that data. Using the same data, she tracks the staff member's project time to improve efficiency, track progress, and create a more accurate schedule and cost estimate.

PARTIAL LIST OF RELEVANT REFERENCES

Business Name: County of Robeson
Address: 701 North Elm Street, Lumberton, NC 28358
Contact Name: Shelton Hill, Deputy County Manager
Phone Number: (910) 671-3022

Business Name: NC Renewable Chip Facility
Address: Hestertown Road, Lumberton, NC 28358
Contact Name: Gregg Martin, Civil and New Construction Division Manager
Phone Number: (678) 925-4118

Business Name: Robeson County Housing Authority
Address: 701 North Elm Street, Lumberton, NC 28358
Contact Name: Jason King, Assistant County Manager
Phone Number: (910) 671-3019

Business Name: UNC Health
Address: 300 W 27th St, Lumberton, NC 28358
Contact Name: Karen Kay, Facility Services Director
Phone Number: (910) 671-5000

Business Name: Robeson County Sheriff's Department
Address: 120 Legend Rd, Lumberton, NC 28358
Contact Name: Burnis Wilkins, Sheriff
Phone Number: (910) 671-3100

REFERENCES

Anthony Hardin

New Construction Manager
Lumbee Tribe of NC
PO Box 2709
Pembroke, NC 28372
(910) 522-2223

Burt Benson

President
Benson Construction Co.
PO Box 1250
Lumberton, NC 28359
(910) 739-9969

David Clark

President
Camp Clearwater
PO Box 337
Elizabethtown, NC 28337
(910) 862-3365

Bruce Davis

President
B W Davis Construction Co.
PO Box 1147
Lumberton, NC 28359
(910) 738-7268

B. G. French

Owner
Lumber River Real Estate
4310 Ludgate Street
Lumberton, NC 28358
(910) 739-3335

Scott Noble

Assis. Vice Chancellor for Facility Mgmt.
UNCP
PO Box 1510
Pembroke NC 28372
(910) 521-6374

Dwayne Hunt

Director of Maintenance
County of Robeson
701 N. Elm Street
Lumberton, NC 28358
(910) 671-3017

Karen Kay

Engineering and Facility Management
UNC Health Southeastern
PO Box 1408
Lumberton, NC 28359
(910) 671-5821

Jason King

Assistant County Manager
County of Robeson
701 North Elm Street
Lumberton, NC 28358
(910) 671-3019

Mr. Earney Hammonds

Director of Facilities/Management
PSRC
PO Box 2909
Lumberton, NC 28359
(910) 735-2224

Tim Little

Fund Development Director
Robeson County Partnership for Children
210 E 2nd Street
Lumberton, NC 28358
(910)738-6767



CITY OF LUMBERTON

STATEMENT OF QUALIFICATIONS – ROSEWOOD DRIVE DRAINAGE PROJECT

DECEMBER 2, 2024

Wooten

COVER LETTER

December 2, 2024

Rob Armstrong
City of Lumberton
215 S Cedar St
Lumberton, NC 28359



RE: Statement of Qualifications - Rosewood Drive Drainage Project

Dear Mr. Armstrong:

The Wooten Company is pleased to submit our qualifications to provide professional engineering services for the City of Lumberton's Rosewood Drive Drainage Project. We have previously worked with the City on designing and implementing various infrastructure improvements, and we look forward to the opportunity to collaborate with the City once again on this crucial stormwater drainage project.

On the following pages of this proposal, we will outline our plan to work with the City developing effective solutions to the documented flooding issues observed. Our design will include construction plans, specifications, and permitting necessary to procure bids. This area of Rosewood Drive has been prone to flooding for years and now we look forward to assisting the City in addressing this recurring problem with full design of an appropriately sized conveyance network outfalling to Meadow Branch.

Our project team will be lead by Hans Benford from our Wilmington Regional Office and will include John Grey PE who has worked closely with the City of Lumberton for years. We are committed to clear communication, prompt coordination, and effective results, and hope that we can clearly demonstrate this in the following proposal. We invite you to reach out to us at any point during your selection process if you have questions about our proposal.

Best Regards,

THE WOOTEN COMPANY

A handwritten signature in blue ink, appearing to read 'W. Brian Johnson', with a horizontal line extending to the right.

W. Brian Johnson, PE - President
919.828.0531 - bjohnson@thewootencompany.com
120 N. Boylan Ave. Raleigh, NC 27603

GENERAL INFORMATION

The Wooten Company is a privately held, multi-disciplinary firm with 92 employees focused on providing municipal engineering, surveying, and architectural services. Founded in 1936 and incorporated in 1949 in North Carolina, L.E. Wooten and Company (dba The Wooten Company) is now in its 86th year of continuous operation and is licensed by the State of North Carolina to practice engineering and surveying (NC Certificate of Registration F-0115), and architecture (NC Board of Architecture Certificate 50430).

A comprehensive range of capabilities including environmental engineering, general civil engineering, geomatics, mechanical engineering, electrical engineering, plumbing engineering, and architecture affords our clients a singular point of contact for a majority of their infrastructure needs, and therefore efficient and reliable solutions that keep the taxpayer front of mind.

SPECIALTIES

- Water and wastewater treatment
- Water booster pumping, storage and distribution
- Wastewater pump stations and collection
- Site/Civil design
- Stormwater conveyance and treatment
- Roadway design and pavement condition survey
- Infrastructure planning
- Preliminary engineering and environmental assessment documents
- Surveying and Geographic Information Systems
- Water/Wastewater system modeling
- Mechanical and HVAC design
- Electrical design



OFFICE LOCATIONS



LOCAL OFFICE

272 N. Front St, Ste 401
Wilmington, NC, 28401
P: 910.660.0520

TECHNICAL APPROACH / UNDERSTANDING

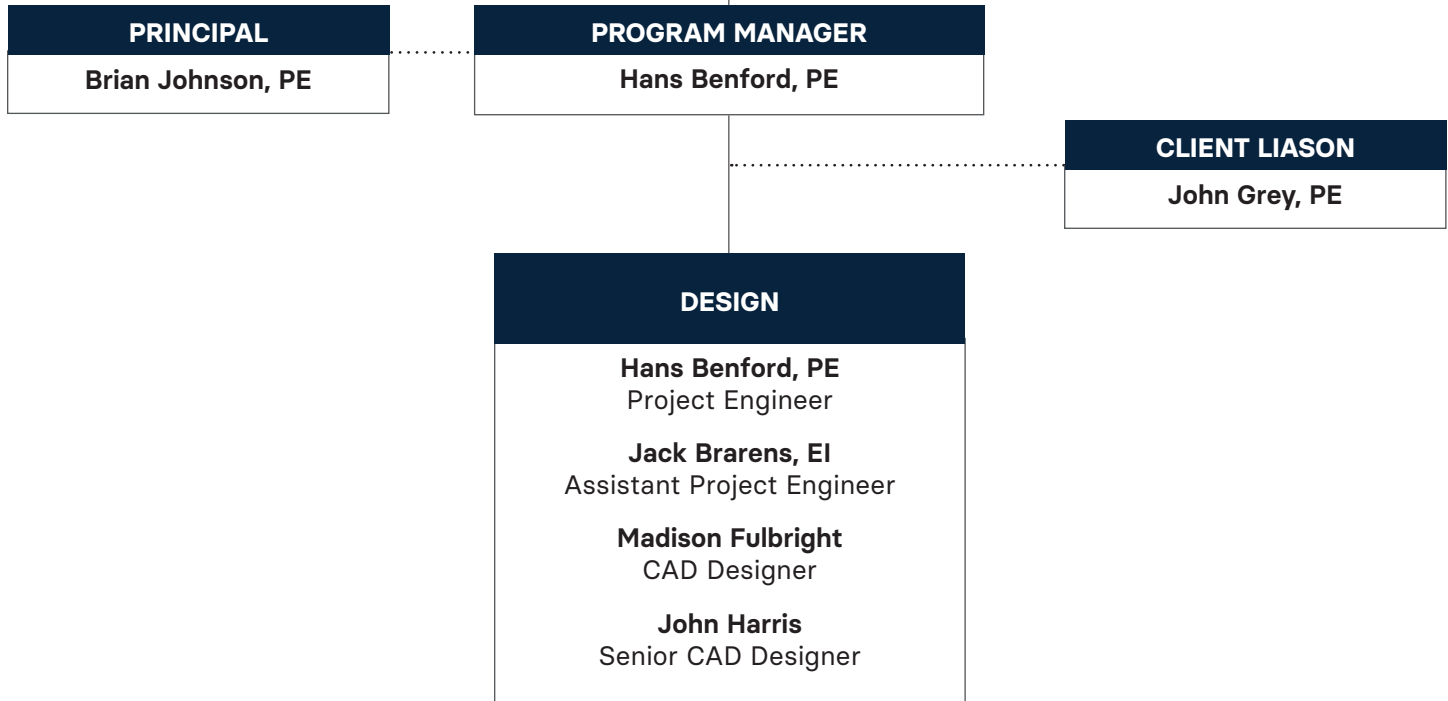
PROJECT UNDERSTANDING

The City of Lumberton is addressing recurring flooding at a specific location along the 3500 block of Rosewood Drive. Preliminary field investigations indicate that the issue arises from a topographic “saddle” in the roadway at the affected area. To mitigate this flooding, drainage improvements must evaluate both the contributing drainage area and the subsurface drainage system directing runoff to Meadow Branch. Our estimated total length of primary drainage trunkline improvement to the nearest surface outfall is ~1,600 linear feet. Potential solutions may include enhancing the hydraulic capacity of the downstream conveyance system and optimizing surface runoff collection through additional inlets and clog-resistant inlet designs. The approach outlined below details how The Wooten Company plans to develop an efficient and effective design solution to address the City’s flooding concerns on Rosewood Drive.

DESIGN APPROACH

- 1. Kickoff Meeting**– Upon a notice of award, we will bring our key design group together to meet in person with City staff to review scope of work, budget and schedule.
- 2. Data Collection** – This initial step will involve meeting with the City at project inception to review and collect any information that the City may have regarding the area of concern on Rosewood Drive experiencing frequent flooding, known structural deficiencies, conditions, record drawings, existing system data, etc. that may support our hydrologic and hydraulic assessment of the drainage network.
- 3. Field Investigation/Survey** – A field investigation with regard to location of the system components, existing maps and institutional knowledge will be collected. After this data is examined a more extensive effort is needed to gather all pertinent data (i.e. a topographical survey, boundary/ROW verification, easements, SUE, geotechnical investigations, etc. We anticipate that all proposed improvements will be constructed within City roadway right-of-way.
- 4. Drainage Assessment** – Utilizing the data collected, The Wooten Company will perform our own assessment of the existing drainage system. Results from the preliminary evaluation will be used as a baseline modeled for the 10-, 25-, 50-, or 100-year design storm events, depending on what is required for the type of road level service. Calculations will determine whether the existing capacity of the system meets the current regulations for drainage design. We plan to utilize HydroCAD, AutoCAD Storm Sewers, or USEPA SWMM modeling software.
- 5. Summarize Findings**– Once all field investigations have been completed, we will compile the information gathered during the investigation and summarize our findings for the City. This summary will indicate the preliminary drainage plan for relevant areas.
- 6. Recommended Solutions & Preliminary Drainage Plan**– Develop a comprehensive set of recommendations to address each identified issue. This plan will outline potential improvement options, tailored to the complexity of the problems. For instance, based on the size of the pipe discharging into Meadow Brook, we anticipate the need for full replacement of smaller-diameter pipes along much of the trunkline. However, for large storm drains with structural deficiencies, options may include rehabilitation or slip-lining techniques. The plan will also detail the necessary permitting requirements. A preliminary drainage plan will be prepared to guide implementation.
- 7. Cost Opinions** – The Wooten Company will Prepare opinions of probable cost for the proposed improvements to assist the City in planning funding strategies and implementation timelines. For recommendations offering multiple alternatives, cost estimates will be provided for each option to aid in selecting the most appropriate long-term solution. This evaluation will also consider additional factors, including potential impacts on citizens, environmental effects, and property considerations, to ensure a balanced and informed decision-making process.
- 8. Final Construction Drawings** – As a final deliverable, we will compile a complete set of construction drawings and a contract manual suitable for bidding for all proposed drainage improvements. Final opinion of probable costs will be included.

PROPOSED PERSONNEL



PROJECT MANAGEMENT

SCOPE

- ➔ Prepare clear defined scope
- ➔ Confirm project goals
- ➔ Identify roles and responsibilities

RISK

- ➔ Mitigate risk
- ➔ Implement QA/QC process
- ➔ Budget and schedule control

COMMUNICATION

- ➔ Identify stakeholders early
- ➔ Hold project workshops
- ➔ Provide summary monthly activity report

RESOURCE MANAGEMENT

- ➔ Internal project meetings
- ➔ Promote accountability
- ➔ On time and on task deliverables

SCHEDULE

- ➔ Detailed activity timeline
- ➔ Key milestones identified
- ➔ Integrated owner review
- ➔ Tracked regularly

BUDGET

- ➔ Updated estimates at 30%, 60%, and 90% milestones
- ➔ Cross check of estimating procedures within team partners
- ➔ Assist with project funding/financing

PROPOSED PERSONNEL



BRIAN JOHNSON, PE
Principal

Brian Johnson, PE, is the Director of Engineering Services for The Wooten Company. Since 1996 Brian has applied his engineering expertise to provide planning, analysis, and design of many infrastructure projects for local governments throughout North Carolina and South Carolina. He has worked on and managed numerous projects, large and small. Brian's project responsibilities have included preliminary studies, design, permitting, and construction administration, and the details included with each project phase. In addition to his departmental duties, he continues to work as a Senior Project Manager working on projects from inception to completion, working closely with clients to ensure they receive a quality project, on time and within budget. Maintaining client satisfaction and a quality project are his ultimate goals.

Education:

BS, Civil Engineering, NCSU
Masters of Civil Engineering, NCSU

Registrations:

Professional Engineer, NC, SC; LEED AP



JOHN GREY, PE
Client Liason

Joining The Wooten Company in 1998 to open the firm's Asheboro Branch Office, John Grey now has over 35 years of experience in the design and construction administration phases of water distribution projects, wastewater collection projects, water and wastewater treatment projects, stormwater, and site development projects. John provides oversight and management on a variety of disciplines for the Winston-Salem Regional Office of The Wooten Company ranging from project funding strategy, to design, bidding and all the way through construction contract services.

His team's focus is on municipal clients in the where environmental stewardship, cost-effective designs and economic development are constants in every infrastructure project they perform.

Education:

BS, Civil Engineering, NCSU

Registrations:

Professional Engineer, NC



HANS BENFORD, PE
Project Manager

Hans Benford joined The Wooten Company in 2024 bringing experience in many facets of municipal engineering and specific technical expertise in water resources engineering. His experience working with multiple stakeholders across a variety of different types of projects allow him to offer cost-effective design alternatives in challenging situations leading to more efficient project design. On a daily basis Hans deals with aspects of projects at every stage in the process from conceptual design all the way to final design and construction. Some of his additional responsibilities include reviewing and approving water, wastewater, and stormwater permits for compliance with North Carolina rules and regulations.

Education:

BS, Civil Engineering, Villanova University
Masters of Water Resources Engineering, Villanova University

Registrations:

Professional Engineer, NC, SC, VA, DE
NPDES Certified Industrial Stormwater Inspector



JACK BRARENS, EI
Assistant Project Engineer

Jack Brarens is an EIT with Wooten's Wilmington Civil Engineering Group. He was involved with the design of a 3 MGD lift station sewer system for the City of Apex, and currently serves as an assistant design engineer for a pump station replacement project for the City of Georgetown, SC. Jack also assists with sanitary sewer system modeling and pump station design tasks for various projects in the region. He previously served as GIS tech and engineer intern for CFPWA in Wilmington.

Education:

BS, Environmental Engineering, NCSU

Registrations:

Engineering Intern

PROPOSED PERSONNEL



MADISON FULBRIGHT
CAD Designer

Madison has five years of CAD Designer experience, as well as experience in Sketchup, Revit and DIALux. In these five years she has worked on projects that are centered in structural and architectural design, lighting and A/V design, and water/wastewater design. Prior to my CAD career, she worked with Alzheimer's and dementia patients, and combat veterans that suffer from PTSD. It was during this time that she discovered my passion for problem-solving and creating tangible solutions to improve the lives of others. Transitioning into the role of a CAD Designer enabled her to merge her love for creative problem-solving with my technical and design capabilities.

Education:

AAS, Architectural Technology, Cape Fear Community College
BA, Recreation Therapy, UNC- Wilmington



JOHN HARRIS
Senior CAD Designer

John Harris serves as CADD Manager for the Civil Department. John's role includes development of department standards, support of CADD personnel, as well as design production. His many years of experience include design and completion of projects featuring roadway design, sidewalk improvements, recreational facilities, water, wastewater, storm water, site development, and street revitalization projects. John works in the Civil/Site Practice.

Education:

AAS, Architectural Technology, Wake Technical Community College

EXPERIENCE OF THE FIRM

CITY OF LUMBERTON - TANGLEWOOD STORM DRAINAGE

As development and impervious areas have increased over the years around the City of Lumberton, the capacity of the existing storm drainage infrastructure, both pipe networks and canals, have begun to exhibit capacity issues. Within the Tanglewood area of the City (one of the oldest, more densely developed and containing critical infrastructure including Southeastern Regional Medical Center) the frequency and severity of these issues prompted City leaders to pursue improvements. The Wooten Company and its team worked to evaluate the capacity of the existing storm drainage infrastructure and verify performance of proposed improvements. Once the preliminary sizing/routing study was completed, The Wooten Company designed the upgrades to the drainage facilities serving the Tanglewood Area. These improvements included over 6,700 feet of 15" through 96" storm sewer replacing the existing pipe system. With the majority of this work being in the roadway through an established residential area, there is significant asphalt repair work and traffic control required. Additionally, this project was funded with EDA funding and coordination with the agency was necessary.

Contact: Rob Armstrong, Director of Public Works, 910.671.3800



CITY OF LUMBERTON - COMBINED SEWER SEPARATION

In 2009, The City of Lumberton required assistance to address storm sewer basins in the downtown area that were tied to the sanitary sewer system. The city was also suffering from failing lines throughout the downtown that were in need of rehabilitation. In order to update and rehabilitate the City's systems, The Wooten Company provided service to 7,000 linear feet of 8" and 12" gravity sewer line, manhole rehabilitation or replacement, service reconnection and pavement repairs. Additionally, 60 linear feet of 42" steel casing with 30" PVC storm drain was installed under the CSX Railroad, and approximately 270 linear feet of 10" sanitary sewer replacement was placed parallel to and within the right-of way of CSX Railroad, (this portion of the contract has been approved but not yet constructed). Clean Water State Revolving Funds were taken advantage of to assist with financing the \$2.5 million project.

Contact: Rob Armstrong, Director of Public Works, 910.671.3800



EXPERIENCE OF THE FIRM

CITY OF WASHINGTON - URBAN STORMWATER MANAGEMENT -

The City of Washington, NC undertook a project aimed at updating their stormwater management system and creating a wetlands/boardwalk area to function both as a filter for runoff and as a recreational asset for it's citizens. The Wooten Company served as the prime consultant and provided design, construction administration and construction observation for the project, which ACEC/NC awarded with their Grand Award for Water Resources. There were three phases of improvements within the work performed. The first included retrofitting the downtown stormwater system to capture a portion of the runoff before it entered the Pamlico River. The second realigned Stewart Parkway along the riverfront in order to reduce impervious cover, and the third involved the construction of the wetlands and boardwalk. A 36-inch through 60-inch diameter bypass piping system was designed to capture the first flush runoff from 73 acres of downtown area and deliver it to the constructed wetland to remove pollutants before discharging into the river. The 4 acre wetland was designed per NC Best Management Practices and the 1900 foot elevated boardwalk through the wetland served as an extension of the riverfront park, connecting residential areas to the NC Estuarium and the central business district in Washington. The project cost the city \$1.457 million but received funding from a Clean Water Management Trust Fund grant.

Contact: Frankie Buck Jr., Public Works Director, 252.975.9302



CITY OF OXFORD - GOSHEN STREET STORMWATER IMPROVEMENTS

Due to flooding of large neighborhood ditches and road intersections, The Wooten Company performed an evaluation of approximately 1,750 LF of 12-inch through 48-inch stormwater piping, structures, and drainage ditch systems that convey runoff from a 66 acre multi-basin drainage area in Oxford, NC. Evaluation included survey and inventory of storm drainage system, analysis of 2-year, 5-year, 10-year, and 25-year storms, and design of improvements based on 10-year and 25-year storms. Hydraulic modeling software was utilized for analysis of existing and proposed conditions. Existing topography and roadway elevations were also evaluated to determine their contribution to flooding issues. Improvements included upsizing existing mains, parallel of existing mains, increasing number of basins, and expansion, cleaning, and regular maintenance of ditches.

Contact: Amy Ratliff, City Engineer, 919.603.1113



EXPERIENCE OF THE FIRM

CITY OF LUMBERTON - LINKHAW ROAD RAILROAD CULVERT REPLACEMENT

The City of Lumberton has been experiencing flooding along Linkhaw road for years. The flooding affects businesses and residents in that area of town. The flooding is due to an undersized culvert under the railroad track that crossed Linkhaw Road. The City hired The Wooten Company to design a replacement culvert system to alleviate the flooding. Wooten had a hydraulic study completed to verify what size culvert would be needed and how it would benefit the different flood situations (10 year, 25 year and 100 year). Initially the effort was to not disturb the railroad tracks with the installation and a design was completed to install 3 54" casing pipes with 48" culver pipe installed inside the casing. While design and review of this was on going the industry at the end of the railroad spur shut down taking the spur out of service. The railroad suggested an open cut approach with box culverts to replace the multiple circular culverts. This is being designed and permitted with plans to construct in 2025. The project is partially funded by GoldenLeaf.



Contact: Rob Armstrong, Director of Public Works, 910.671.3800

Schedule: 2024-Ongoing

CITY OF GREENVILLE (HAZEN AND SAWYER) - 2019 STORMWATER MASTER PLAN

The purpose of the project was to map a complete storm drainage system conveying public water within the Green Mill Run watershed located in Greenville, NC. The Wooten Company was a sub-consultant to Hazen and Sawyer, who performed the overall Stormwater Master Plan. Initially the watershed had to be provide schematics of connectivity between storm water structures and open drainage systems within the map book. Field crews utilized the preliminary connectivity sketches to locate and collect pertinent information of individual structures. The process of field data collection for such a large project area was expedited through the usage GPS receivers operating on the NC Continuously Operating Reference Station (CORS) Network, allowing coordinates to be corrected on-the-fly. Areas of dense canopy and tall building structures had to be located conventionally with a total station. Based upon the attributes collected within the field, structures could be connected using GIS programming to allow for a network analysis and storm water modeling. Lastly, the large geodatabase of individual structures and its seamless connectivity within the Green Mill Run watershed were transferred to the modeling engineer where analyses were performed to determine areas of potential flooding.



Contact: Everette Knight, Hazen and Sawyer, 919.833.7152

4011 Westchase Boulevard, Suite 500, Raleigh, NC 27607

EXPERIENCE OF THE FIRM

The following projects were completed by Hans Benford at a previous firm

DELAWARE AVENUE STREETScape IMPROVEMENT

With a previous firm, Hans Benford, PE, served as the lead H&H designer responsible for design and construction of urban stormwater flow-through the bioretention facility from concept to final design and construction. The goals of the project included pedestrian improvements, traffic calming measures, enhanced streetscape aesthetics and incorporation of green infrastructure stormwater management along Delaware Avenue in Wilmington's historic Forty Acres neighborhood. The team determined the best type of facility and location based on many factors such as available open space within the right-of-way, contributing drainage area, utility conflicts, parking needs, sidewalk accessibility, and community feedback. Design of the facility included delineating drainage areas, calculation of runoff, and sizing the facility appropriately to treat the maximum amount of runoff within the available facility footprint to alleviate stormwater related stress on the downstream combined sewer system.



NEWARK REGIONAL TRANSPORTATION CENTER

Hans Benford, PE, served as the project drainage/SWM/ESC engineer for multi-modal transportation center in Newark, Delaware. Project site design on University of Delaware campus involved collaboration between the University, the City of Newark, DelDOT, Amtrak, and Norfolk Southern. The project included comprehensive drainage, stormwater, and ESC design for the parking lot and building portions of the project to meet environmental regulations. Mr. Benford coordinated field meetings with the contractor to address drainage issues as they arose during construction. Drainage and SWM facilities included traditional inlets and pipe systems, curb opening inlets, a bio-swale, and a bioretention basin. Mr. Benford also retrofitted an existing stormwater pond and utilized existing infrastructure where possible to minimize costs and impacts to surrounding areas. Designed ESC with complex MOT phasing, railway restrictions, and advanced utility relocation.



RATE SCHEDULE

The hourly rates outlined below include fringe benefits, indirect costs, reimbursable expenses, and profit.

WAGE CATEGORY	HOURLY BILLING RATE
Engineer I	\$ 136
Engineer II	\$ 172
Engineer III	\$ 210
Engineer IV	\$ 252
Engineer V	\$ 298
Architect I	\$ 105
Architect II	\$ 135
Architect III	\$180
Designer I	\$ 99
Designer II	\$ 115
Designer III	\$ 139
Designer IV	\$ 179
Construction Admin I	\$ 136
Construction Admin II	\$ 197
Construction Admin III	\$ 258
Construction Observer / Resident Project Representative	\$ 128
Utility Coordinator II	\$ 148
Utility Coordinator III	\$ 228
Survey Technician I	\$ 69
Survey Technician II	\$ 81
Survey Technician III	\$ 95
Survey Technician IV	\$ 113
Survey Technician V	\$ 143
Surveyor I	\$ 110
Surveyor II	\$ 135
Surveyor III	\$ 169
Surveyor IV	\$ 224
GIS Analyst I	\$ 99
GIS Analyst II	\$ 116
GIS Analyst III	\$ 136
GIS Analyst IV	\$ 150
Funding Coordinator I	\$ 92
Funding Coordinator II	\$ 125
Funding Coordinator III	\$ 175
Project Assistant	\$ 95

Reimbursables: Mileage will be billed at the current IRS Standard Mileage Rate, Subcontracted Services and other expenses at cost plus 15%.

Standard Hourly Rates are subject to periodic review and adjustment.

Effective as of July 1, 2024.

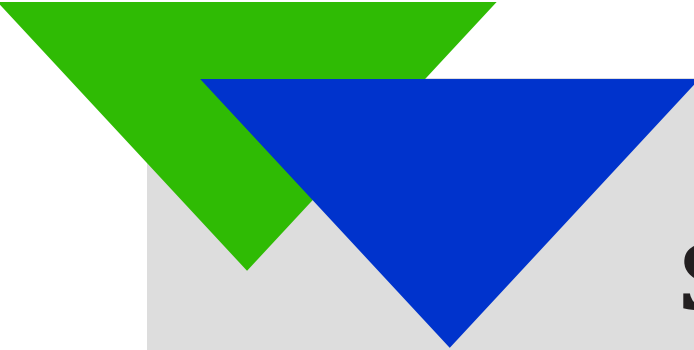
FAMILIARITY WITH LOCALITY

The Wooten Company has a long history of successful project partnerships with the City of Lumberton, whether architectural, engineering, or funding administration related. Many of the collaborations are as a result of our intimate knowledge of the City's public infrastructure needs. The list below is just a snapshot representation of our continuing work with the City of Lumberton.

- **TANGLEWOOD STORMWATER IMPROVEMENTS**
- **WTP FLOOD PROTECTION**
- **RAW WATER INTAKE IMPROVEMENTS**
- **SEWER AIA**
- **WATER AIA**
- **2018 PRIORITY POINTS SEWER REHABILITATION**
- **ROSEWOOD MOBILE HOME PARK SEWER**
- **NORTHWEST SEWER SYSTEM EVALUATION**
- **OLD WHITEVILLE ROAD SEWER IMPROVEMENTS**
- **PHASE III SEWER SYSTEM MAPPING**
- **REGIONAL WASTEWATER STUDY**
- **SANITARY SEWER COLLECTION SYSTEM**
- **TANGLEWOOD SEWER REHABILITATION**
- **TANGLEWOOD INFRASTRUCTURE MAPPING**
- **BILL SAPP CENTER RENOVATION**
- **CANCER INSTITUTE SEWER PUMP STATION IMPROVEMENTS DESIGN**
- **LUMBERTON CHRISTIAN CARE CENTER**
- **COMBINED SEWER SEPARATION**
- **DOWNTOWN AREA MAP**
- **EASTERN INTERCEPTOR FORCE MAIN**
- **KENNY BIGGS SEWER IMPROVEMENTS**
- **HAZARD MITIGATION PLAN UPDATE**
- **MANHOLE INSPECTION**
- **MILL STREET SEWER**

As a team devoted to supporting the health and welfare of communities throughout the Carolinas, we sincerely appreciate the opportunity to continue to develop our working relationship with the City of Lumberton. These referenced qualifications are the results of decades of hard work and commitment - a proud cornerstone of our practice - to the communities that we call home.

A Tradition of
DESIGNING THE FUTURE ►



STATEMENT OF QUALIFICATIONS

City of Lumberton

ENGINEERING SERVICES FOR
ROSEWOOD DRIVE DRAINAGE
PROJECT

DECEMBER 2, 2024



PREPARED BY

CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
910-452-5861

CATLIN
Engineers and Scientists

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December 2, 2024

Rob Armstrong
City of Lumberton
215 South Cedar St.
Lumberton, NC 28359

220 Old Dairy Road
Wilmington, NC 28405
910-452-5861
www.CatlinUSA.com

Re: Request for Qualifications- Engineering Services for Rosewood Drive Drainage Project

Dear Mr. Armstrong:

We at CATLIN Engineers and Scientists (CATLIN) express our gratitude for the opportunity to present our qualifications regarding the City of Lumberton's Request for Qualifications (RFQ) for **Engineering Services for the Rosewood Drive Drainage Project**. Our extensive expertise in hydraulic study projects and skilled design team, paired with our familiarity working with the City, positions us ideally to deliver these services.

CATLIN Engineers and Scientists (CATLIN) has been a steadfast presence in North Carolina, specializing in Environmental, Civil, and Geotechnical Engineering solutions for nearly four decades. As a small business, our dedication to our clients is unwavering, forming the cornerstone of our company ethos. Combined with our multi-disciplinary nature, CATLIN is unique in our ability to see an integrated approach to each project.

Zachry Nichols Jr., PE, will lead our project management efforts. He brings substantial experience managing civil and geotechnical engineering projects of varying sizes, from large, multi-million-dollar federal projects to private local clients. Under his leadership, our team will design and implement a storm drain solution to address the localized deficiencies in Rosewood Drive's drainage infrastructure.

Why CATLIN? Our Small Business approach is an asset to you- We offer:

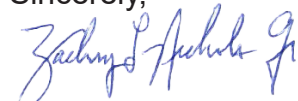
1. Streamlined Decision-Making: Unlike our larger counterparts with complex, multilayered approval processes, CATLIN offers swift and proactive decision-making to meet our client's needs. Being a small firm means inherently maintaining a shorter chain of command, ensuring timely responses from our management. For instance, if our client requests an adjustment mid-project, CATLIN's contract manager can quickly consult with our designers to authorize the change—often within minutes. We can assure you of the delivery of prompt and personalized service.

2. Mission-Focused Approach: As a small business, we pride ourselves on our ability to be highly agile with scheduling to maintain the project's timeline. Our team takes a hands-on, adaptable approach to project challenges, often reallocating resources dynamically to keep tasks on track. If a field technician isn't available for a critical task, an engineer will step in to complete the work—showing that every member of our team is ready to contribute, regardless of title. This flexibility ensures that we meet deadlines and exceed expectations without compromise.

3. Competitive Pricing and Quality Commitment: At CATLIN, our streamlined operations allow us to offer highly competitive pricing without compromising on the quality of our services. Unlike larger companies with rigid pricing structures, our small business model enables us to provide flexible, tailored pricing solutions while still delivering our best product to the client—something that is vital for the livelihood of a small business. For us, providing high-quality services isn't just a commitment; it's a lifeline. Our reputation is our most valuable asset, and maintaining it through exceptional work is essential to our continued success and growth.

Thank you for considering us for this opportunity. By signing this Letter of Interest, CATLIN affirms that if selected, we commit to performing all work within the contract period. Should you have any questions or require further information, please contact us at 910-452-5861.

Sincerely,



Zachry Nichols Jr., PE
Contract Manager
Zack.Nichols@CatlinUSA.com

1) Technical Approach/Understanding of the Program

A. FIRM EXPERIENCE

CATLIN has provided **Environmental, Civil, and Geotechnical** Engineering and Consulting services across North Carolina for nearly four decades. Since our inception in 1985, we've consistently delivered professional engineering, planning, and management services to a **diverse clientele**, including Federal, State, and Local governments, industrial clients, and private companies. Our distinguished team comprises seasoned registered professionals proficient in various disciplines, including environmental, civil, and geotechnical engineering, hydrogeology, geology, and environmental science. In addition to our consulting services, CATLIN offers geotechnical and environmental drilling utilizing our fleet of in-house drill rigs and licensed operators, as well as soil property testing services facilitated through our NCDOT, USACE, and AASHTO-accredited geotechnical soil laboratory. CATLIN is



Founder Rick Catlin utilizing a hand auger to sample soils in 1990s.

solely owned by Jason R. Catlin, PE, with headquarters in Wilmington, NC, and offices in Raleigh, NC and Washington, NC. **Operating as a Small Business Enterprise under NAICS Code 541330 Engineering Services, CATLIN is licensed to practice engineering (License No. C-0585), geology (License No. C-118), and general contracting (License No. 32900) in North Carolina.** CATLIN's growth trajectory can be attributed to our exceptional service quality, vast knowledge base, professional reputation, and a customer service approach that consistently exceeds our clients' expectations.

Our team has the capability, knowledge, and expertise to successfully execute both simple and complex engineering projects. We have developed an excellent reputation as a responsive, competent, and versatile engineering firm, and we take pride in our leadership role with respect to regulatory knowledge and our considerable experience in successfully completing thousands of projects throughout the Southeast. Project types may vary but all require unique solutions to sometimes complex problems. CATLIN specializes in providing comprehensive planning, design, and management services for



NCDEQ Familiarity

stormwater management, flood studies, and hydrologic and hydraulic analysis. Through meticulous site planning and assessments, we ensure that our projects meet functional, aesthetic, and environmental goals. Our expertise includes conducting detailed studies and reports, GIS research, and hydrologic and hydraulic analyses to predict stormwater flow and mitigate flood risks. We prepare thorough stormwater management plans, including the design of Stormwater Control Measures (SCMs), ensuring that construction documents and specifications are precise and effective. Our team also handles the regulatory permitting process, securing necessary approvals from entities such as the NCDEQ, NCDOT, and USACE.

In the realm of construction, we emphasize detailed earthwork and grading plans that define post-construction surface characteristics, collaborating closely with geotechnical engineers to understand subsurface conditions. Our erosion and sedimentation control designs use advanced 3D modeling to ensure proper drainage and minimize erosion during construction. We provide construction phase services, including site observation, conflict resolution, and final certifications, to ensure projects adhere to approved plans and specifications.

Additionally, our utility design services encompass hydraulic modeling, fire flow calculations, and water and sewer infrastructure planning. By integrating these services, we deliver robust solutions that address stormwater management and hydrologic challenges, ensuring sustainable and resilient project outcomes.

B. UNDERSTANDING AND APPROACH

For this project, CATLIN will investigate and design a storm drain solution that addresses localized deficiencies in the existing drainage infrastructure on the 3500 block of Rosewood Drive. Using hydraulic study methods, our team will analyze the current storm drainage infrastructure to delineate where the problems lie and utilize the findings to design a solution that will extend a properly sized storm drain system to connect to an available outfall with sufficient capacity. Following the preparation of a final design, CATLIN will assist with bidding and negotiation, as well as construction admin and observation—seeing the project through from investigation and design to completion. We understand that feasibility is essential during the design phase, and our team will maintain transparency and communication throughout the entirety of the project.



Site Map

The residents living on Rosewood Drive, particularly in the vicinity of homes located between 3530 and 3580 (labeled as target area above) are experiencing frustration due to storm capacity issues, presenting even at a 2-year storm event. Noted are the relatively flat grades along Rosewood Drive, rolled curb and gutter, lack of proper inlet placement, and blockage of the existing inlets; all of which are contributing to insufficient collection and conveyance within the drainage area.

Upon the notice to proceed, our team will walk the site with the City to observe the topography, photograph the stormwater structures, and observe the areas that experience the most significant backups. QL1 LiDAR data, NC Hurricane Florence 7 2020, published 3/18/2022, will be requested from the NC Emergency Management Spatial Data Download website, and will be used to delineate the drainage areas (subbasins) within the overall drainage area to Meadow Branch. Existing models will also be requested from the City to be utilized as a baseline for drainage area determination.

SAM, CATLIN's survey subcontractor, will conduct a field survey consisting of survey-grade field data for stormwater structures that LiDAR data is unable to observe (i.e., recent changes in the landscape, the conveyance of stormwater via underground pipes, underground observations, etc.). The remainder of the study area will utilize a local-base RTK GPS approach and conventional land surveying methods to produce greater accuracy in elevation observations. Observations will be certified within the 95th percentile of accuracy.

To quantify the stormwater deficiencies along Rosewood Drive, CATLIN will use Hydraflow Hydrographs Extension of Autodesk Civil 3D for the hydrologic analysis of the existing drainage basin conditions. The drainage areas delineated from the LiDAR and survey data collected will be used to build the model.



3500 block of Rosewood Drive

Additionally, field data collected for the ditches, pipes and other stormwater structures will be entered into the model for a comprehensive hydraulic analysis of the stormwater drainage system functionality. Additionally, CATLIN will estimate intensities for the 2-, 10-, 25-, 50-, and 100-year frequency storms using NOAA Atlas 14-point precipitation tool.

The model will be used to simulate proposed improvements such as redirecting flows, widening ditches, or upsizing/adding pipes. Proposed improvements will be prioritized by those that eliminate or provide the most flood mitigation notably at lower storm intensities.

We will then compile a final report for the City, consisting of a complete and comprehensive narrative summarizing the historical conditions, hydrologic and hydraulic analyses and results, and final design plans. Appendices to the report will include the model results and schematic plans for the proposed improvements as well as cost estimate.

CATLIN will also prepare preliminary and final construction plans and specifications for this project. It is assumed that the City of Lumberton will provide the front-end specifications for the purposes of bidding and negotiations. CATLIN will prepare the technical specifications using ARCOM-formatted specifications. Preliminary and final documents will be submitted for City, The North Carolina Department of Commerce, and DOT for review and approval. All comments from the City or DOT should be routed through the City to CATLIN, and our team will address them and make necessary revisions.



Clogged Inlet within Target Area

CATLIN will prepare contract documents for bidding purposes including agenda, notice and instructions to bidders, model contract agreement, general and supplemental general conditions, technical specifications, and all other compliance forms required by the funding agencies.

Additionally, CATLIN will provide Contract Administration Services to include notice to bidders and advertisement for bids, assistance with the pre-bid meeting, and bid tabulation and analysis with recommendations for award. We will assist with the preparation of the contracts, preconstruction conference, and review and approvals of shop drawings. We will also prepare change orders as required, conduct monthly site visits and progress meetings, clarify contract documents during construction, review contractor pay estimates for payment, and assist with the project closeout conference.

Construction observation services to be provided by CATLIN will include general engineering observations during construction, reporting to the construction administrator when the work is unsatisfactory, faulty, or defective, or does not conform to the contract documents. We will make final observations of all construction and provide a written certification of final observation to the City.

2) Work Management Plan/Experience of Proposed Personnel

A. MANAGEMENT PLAN AND STAFF

CATLIN is dedicated to delivering top-tier services, ensuring precise execution and adherence to budgetary constraints. Our team's experience with similar municipal projects, detailed throughout this proposal, demonstrates our capability. In addition to our experience working with Lumberton on the REMPAC Foam project, CATLIN has a strong presence in North Carolina and is familiar with the region's physical conditions and regulations. For this contract, our **Contract Manager, Zack Nichols, PE**, will be the primary point of contact for the City, overseeing the entirety of the project and coordinating regularly with the City of Lumberton staff. Mr. Nichols has managed hundreds of civil and geotechnical projects over the past 15 years, and since joining CATLIN in 2023, he has seamlessly taken over all operations of our Civil department, managing our team of civil designers with a plethora of experience in flood studies and stormwater controls systems.

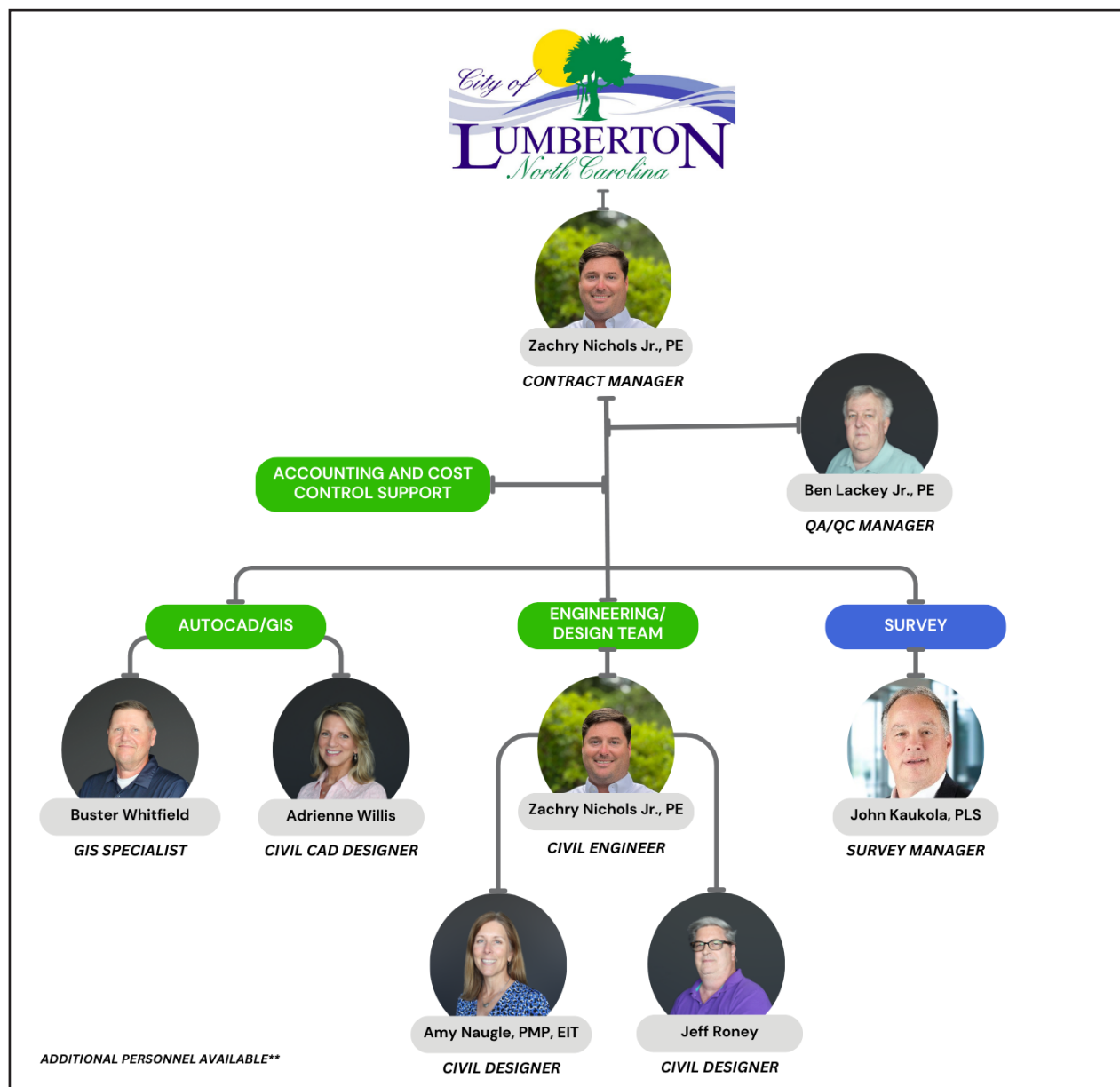
Jeff Roney, CATLIN's lead civil designer, brings 40 years of experience in completing designs on a myriad of project types. Notably, Mr. Roney served as the lead designer for the flood mitigation design at the **REMPAC Foam LLC industrial site in Lumberton, NC**. This project aimed to protect the facility from extreme storm events, including the 10-year through 1000-year storms, as modeled using rainfall data from Hurricane Matthew and Hurricane Florence.

Mr. Roney led the design effort from start to finish, crafting a comprehensive flood mitigation plan based on CATLIN's initial hydraulic study. Using LIDAR topographic data and hydrologic modeling, the study confirmed that an earthen berm, supplemented by additional flood control measures, would effectively safeguard the facility. Jeff's design incorporated features such as a retention pond, stormwater pump, bypass ditch, and flood gates, along with modifications to existing stormwater infrastructure. This is just one of the many examples of similar projects that Mr. Roney has designed over his tenure.

CATLIN has comprised a strong team to carry out the entirety of this project, from data acquisition through surveying and GIS mapping, to analysis and design of flood-reducing strategies, our team holds the knowledge, expertise, and certifications necessary to bring the project to fruition.

CATLIN's project team structure is detailed in the accompanying organizational chart with key professional team members noted. All key project staff are based in our Wilmington office, just an hour and a half drive from Lumberton, with additional personnel available to support this effort if needed. Additionally, we have teamed with SAM's Lumberton office to provide topographic survey. SAM has provided these services for numerous projects in Lumberton and is prepared to coordinate with our team and the City to complete all services.

CATLIN's team has ample capacity to address the City of Lumberton's needs for this hydraulic study project. Our team's expertise, commitment to client satisfaction, paired with our proximity and experience working with Lumberton can guarantee a well-rounded and equipped team to successfully complete this project. As highlighted throughout this proposal, our team members are exceptionally qualified to execute this hydraulic study project for the City of Lumberton. However, beyond mere expertise, the availability and capacity to fulfill the requested services are paramount. As a small, local business, CATLIN adopts a unique approach to each project, prioritizing relationship-building and flexibility. We prioritize personalized attention to every client, ensuring the delivery of top-tier solutions that align with their needs, schedule, and budget.



Organizational Chart

Our small business model allows us to be agile, enabling us to swiftly allocate resources as required and tailor team schedules to match the evolving demands of the project. We are committed to employing every resource necessary to surpass our clients' expectations. This steadfast dedication to our clientele, exemplified by our proven history showcased in past project references, firmly establishes CATLIN as the unparalleled choice for this project.

Below, we have provided details of our supporting team structure and qualifications, demonstrating the culmination of our team members capabilities to complete this drainage project for the City of Lumberton efficiently.

B. RESUMES

1. Zachry Nichols Jr., PE

CATLIN–Wilmington, NC

Total Years Experience- 17.5

BS/ Civil Engineering

Contract Manager/Civil Engineer

Years with CATLIN- 1.5

Professional Engineer- **NC (No. 045493)**

Mr. Nichols has 17 years of project and contract management experience in civil engineering. As the civil project manager at the United States Army Corps of Engineers (USACE), he led teams in executing federal design and construction projects across the eastern United States and Europe. He managed teams of various sizes, ensuring projects stayed within scope, schedule, and budget. His tenure in federal civilian service, including leading Project Delivery Teams (PDT) for \$300M+ projects for USACE, has earned him expertise in the Project Management Delivery Process (PMDP). Transitioning to a privately-owned engineering and construction firm in 2021, Mr. Nichols managed Federal Waters and Facilities projects in the Southeast, enhancing his project management skills in the consulting industry. Since joining CATLIN in 2023, Mr. Nichols has quickly integrated into the firm's civil unit, managing existing contracts with state, local, and private clients, and overseeing a range of new civil works projects. Mr. Nichols' nearly two decades of experience in managing large-scale projects make him exceptionally qualified to lead this drainage project for the City. His proven track record in delivering complex projects on time and within budget, combined with his expertise in civil works projects positions him as the premier choice to manage this project for the City of Lumberton.

2. Ben Lackey Jr., PE

CATLIN–Wilmington, NC

Total Years Experience- 45

BS/ Civil Engineering

QA/QC Manager

Years with CATLIN- 8

Professional Engineer- **NC (No. 011292)**

Ben Lackey joined CATLIN after retiring from the USACE Wilmington District Office, bringing 37 years of experience as a geotechnical engineer. During his tenure with the USACE, he reviewed and managed civil design projects, ensuring adherence to the highest standards of quality and compliance. His expertise spans hydraulic studies and their implications for civil works, military projects, and private endeavors. With extensive experience in quality control for multi-disciplinary engineering designs, Mr. Lackey brings impeccable attention to detail required for quality management.

Mr. Lackey's technical training includes Advanced Geotechnical Site Characterization, Stormwater Innovations, Erosion and Sediment Management, and Shear Strength of Soils, equipping him with a deep understanding of hydraulic and sediment behavior in complex systems. He has conducted design reviews, value engineering studies, and dredged material management plan assessments for major port expansions and harbor deepening projects, requiring in-depth evaluation of hydraulic impacts such as erosion control, sediment transport, and material placement strategies.

His expertise also encompasses subsurface investigation layouts, soil test analysis, and the design of structures including roadways, bridges, embankments, retaining walls, pavements, and excavation systems. At CATLIN, Mr. Lackey oversees subsurface investigations, provides foundation recommendations, and ensures all civil design projects undergo thorough QC reviews. His rigorous approach to QA/QC ensures compliance with established policies, procedures, and technical standards, maintaining excellence across all phases of project execution.

3. Jeff Roney**CATLIN–Wilmington, NC**

Total Years Experience- 40

AAS/ Drafting and Design &

Civil Engineering Technology

Senior Civil Designer

Years with CATLIN- 10

Jeff Roney boasts an impressive 40 years of experience as a civil designer, with a robust background in both mechanical and civil engineering projects. His extensive expertise encompasses designing and performing hydraulic and hydrology studies, preparing detailed technical reports, and coordinating and permitting stormwater and erosion control measures for various commercial and residential projects.

Mr. Roney has demonstrated his proficiency in designing site, utility, stormwater, grading, erosion control, and wetland plans using AutoCAD and Civil 3D. He has successfully prepared and submitted permit applications to city, state, and federal agencies, and has collaborated closely with city and county planners on all aspects of project development. His experience includes preparing base maps for orthographic images and survey data, as well as calculating sewer inverts, slopes, and waterline placements in accordance with accepted standards.

Proficient in various computer programs, Mr. Roney's technical skills include TR55, HEC-2, HEC-RAS, Hydraflow Hydrograph and Storm Sewer, WaterCAD - Pipe Network Analysis Program, AutoCAD, and Civil 3D for design and plan preparation. As CATLIN's Lead Civil Designer, he is a trusted team member who regularly manages multiple and varied civil engineering design projects. He assists clients with preliminary site plans, surveys, and inventories, and is readily available as a resource, particularly for municipalities. His ability to mobilize quickly for site reconnaissance ensures timely and efficient project execution.

For this project, Mr. Roney will serve as the lead designer under the management of Mr. Nichols. Leveraging his 40 years of experience, combined with his expertise in hydrologic and hydraulic analysis, floodplain mapping, and stakeholder engagement, establishes him as the ideal candidate to serve the City on this project. His comprehensive understanding of FEMA regulations and guidelines ensures that the drainage project will not only be thorough and accurate but also compliant with all necessary standards and funding requirements.

4. Amy Naugle, PMP, EIT**CATLIN–Wilmington, NC**

Total Years Experience- 20.5

BS/ Civil Engineering

QA/QC Manager

Years with CATLIN- 1.5

Professional Engineer- **MD (Pending License Reinstatement)**

Project Management Professional

Amy Naugle brings 20 years of engineering experience in various civil works projects. While practicing in Maryland, she specialized in utility design and stormwater management across multiple counties. As a Project Engineer for a land development firm in Pennsylvania, Ms. Naugle conducted site reconnaissance for flood study models, analyzed existing conditions, and delineated pre- and post-flood areas. She is proficient in several computer programs, including TR55, HEC-2, HEC-RAS, Hydraflow Hydrograph, and Storm Sewer. Her expertise includes providing support and quality control for all types of plan sets (water, sewer, and stormwater). She regularly reviews preliminary reports and offers valuable insights to ensure the best possible outcomes for each client.

Since joining CATLIN in 2023, Ms. Naugle has collaborated closely with Mr. Roney and Mr. Nichols on various civil works projects. Ms. Naugle's dedication to ensuring the best possible outcomes for each client, coupled with her meticulous attention to detail and thorough understanding of flood control principles, underscores the importance of her role in guiding this drainage project towards success. Her contribution will enhance the team's ability to deliver comprehensive drainage improvement strategies.

5. *Adrienne Willis*

CATLIN–Wilmington, NC

Total Years Experience- 25

BFA / Environmental & Architectural

Design Technology

Civil CAD Designer

Years with CATLIN- 8

Adrienne Willis boasts an impressive 25 years of experience as a technical designer, site planner, and 3D visualization artist. Proficient in a multitude of design software applications, including AutoCAD Architecture, Civil3D, Map3D, InfraWorks, MicroStation, Chief Architect, Sketchup, and ArcGIS, she brings a wealth of technical expertise to the table. Her role extends beyond mere design as she seamlessly integrates GIS data into civil design projects and compiles essential information into formal documents and technical reports. Utilizing SpecsIntact software, Ms. Willis coordinates, edits, and reconciles facility construction specifications and submittals, ensuring meticulous attention to detail. Ms. Willis's proficiency in advanced modeling software allows her to create captivating 3D conceptual models, video flythroughs, animations, and renderings of civil projects. These visual representations are invaluable for presentation meetings with stakeholders and clients, facilitating clear communication and informed decision-making. In collaboration with Mr. Roney, Ms. Willis provides crucial technical assistance in creating detailed and accurate drawings, plans, and visual representations of project components. Her expertise in Adobe Photoshop, Premiere Pro, and web design further enhances her ability to deliver high-quality outputs tailored to meet project requirements.

Ms. Willis's multifaceted skill set, and extensive experience make her an indispensable asset to the project team. Her ability to translate complex technical information into visually engaging presentations will play a vital role in conveying project concepts effectively to stakeholders and ensuring project success.

6. *T. Buster Whitfield*

CATLIN–Wilmington, NC

Total Years Experience- 27

BA / Geography

GIS Specialist

Years with CATLIN- 22

Thomas 'Buster' Whitfield's expertise lies in ArcGIS and database application development, operation, and maintenance, making him an invaluable asset to civil works projects. He adeptly utilizes ESRI ArcView, ArcMap, and ArcIMS to craft web-based Geographic Information Systems (GIS) applications.

In his role as GIS lead on CATLIN's Underground Storage Tank Management Data Management Program at Marine Corps Air Station Cherry Point, Mr. Whitfield manages and integrates quarterly and semi-annual laboratory analytical data and groundwater level gauging data from contractors into the GIS and database. He meticulously prepares semi-annual Monitoring Reports and provides crucial assistance in developing Management Recommendations Reports and Sampling Plans for upcoming sampling events. Additionally, he played a pivotal role in shaping the Strategy Plan for the UST Management Plan at MCB Camp Lejeune, aimed at streamlining site closure processes for enhanced efficiency and cost-effectiveness.

Furthermore, Mr. Whitfield extends his support to the CADD department by assisting with drafting and drawing preparation for reporting purposes. His proficiency in MicroStation enables him to create detailed 3-D models of groundwater contours and contamination isoconcentrations, further enhancing the visualization of complex data sets.

In the context of civil works projects, Mr. Whitfield will collaborate closely with all project team members to streamline data collection and visualization efforts for the analysis of flood events. His expertise will play a pivotal role in facilitating the design team's endeavors, ensuring comprehensive and accurate insights into flood dynamics and mitigation strategies.

7. John Kaukola, PLS

SAM–Lumberton, NC

Total Years Experience- 36

Civil Engineering Courses

Survey Manager

Years with SAM- 3

Professional Land Surveyor- **NC (L-3999)**

FAA Part 107 Drone License

John Kaukola serves as a Survey Department Manager for Surveying And Mapping, LLC (SAM). In this capacity he has oversight of all surveying operations for SAM projects and contracts in North and South Carolina.

Mr. Kaukola's career spans 33 years of Surveyor experience with the North Carolina Department of Transportation; 31 years with the Location and Surveys Unit and 2 years with the Construction Unit. During his tenure with NCDOT, he was Division 6 Locating Engineer for over 16 years, Division 6 Assistant Locating Engineer for 3 years, Transportation Technician VI-GPS Project Coordinator, Crew Chief and CADD Operator. Mr. Kaukola managed all surveys in Division 6, including supervising surveys to support Photogrammetry, Hydraulics, Geotech, and any other surveys requested by NCDOT.

Mr. Kaukola's experience includes managing Division 6 Location & Surveys' daily operations of office and field personnel; managing all projects, personnel matters, performance management, payroll and equipment; supervising engineers and technicians performing route location surveys, r/w monumentation, property surveys, and control surveys as these assignments arrive. Additional responsibilities included the hiring and management of private engineering firms for selected projects negotiating project man-hours. Mr. Kaukola was also responsible for all project data transmitted to ensure the accuracy of the project assignment, directing all field office activities to complete assignments in a timely manner, manage group safety programs to make it a top priority while following departmental policies.

3) Experience of the Firm

A. PAST PROJECT EXPERIENCE

1. USACE Princeville Flood Risk Management Investigation and Design Analysis

Princeville, NC

Client Entity Name: USACE-Wilmington District (SAW)

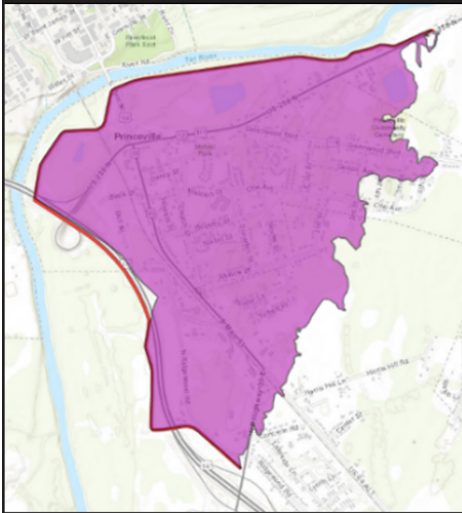
Client Principal Contact: Tamara Murphy, Lead AE Coordinator, Engineering Branch

Client Email: Tamara.C.Murphy@USACE.Army.Mil

Client Phone: 910.251.4429

CATLIN provided AE services to the USACE Wilmington District for the Princeville Flood Risk Management (FRM) Investigation and Design Analysis project associated with the proposed levee expansion in Princeville, NC. A combined team of 6 local companies collaborated on hydrologic and hydraulic analysis, geotechnical investigation, wetland delineation, and surveying support.

During initial analysis, model results showed that effects on maximum water surface elevations by the Authorized Project span beyond the area immediately upstream and downstream of Princeville. To entirely quantify the impacts of the Project and provide a more comprehensive analysis, the model was extended both upstream and downstream. The hydrologic and hydraulic analysis evaluated the potential for increased flood elevations along the Tar River resulting from the decrease in available floodplain storage volume upland of the levee improvements in the Recommended Plan. CATLIN developed an inventory of FEMA Buyout properties. We coordinated with utility companies (including overhead and buried) to obtain pertinent data and as-built information. We field located the utilities and prepared AutoCAD drawings showing utilities.



Princeville Drainage Area

In order to mitigate flooding impacts due to the implementation of the Authorized Project, potential Courses of Action (CoAs) that have the potential to reduce and/or eliminate flooding impacts were developed. Three CoAs were selected for study, which included realignment of portions of the existing levee, bridge expansions, roadway improvements, and culvert installation. Modeling of select CoAs was completed using the HEC-RAS model to quantify the potential effectiveness of each CoA at further mitigating flood risk. New model geometries and terrains were created in order to model each CoA.

CATLIN coordinated with a subcontractor to complete Closed Circuit Television (CCTV) inspections of existing culverts that pass through the levee, and prepared a report of the pipe video inspections, completed a condition assessment for each culvert, and evaluated the requirements to modify each culvert for incorporation into the

Princeville FRM project. CATLIN generated AutoCAD files and drawings showing the culverts including size and inverts based on survey data collected.

Ms. Shoemaker, USACE Wilmington's Contracting Officer provided a Contractor Performance Assessment Rating Systems (CPARS) rating, a commonly used rating system for federal projects, following project completion. Under the four evaluation areas- 'Quality', 'Schedule', 'Cost Control', and 'Management'; CATLIN received an 'Exceptional' rating on Quality, Schedule, and Management, and was rated 'Very Good' for Cost Control. This score exemplifies CATLIN's track-record of successfully executing projects, consistently delivering a high level of client satisfaction.

2. MICC- Fort Liberty Design Repair Stormwater Beaver Creek Drainage

Fort Liberty (Formerly Fort Bragg), NC

Client Entity Name: Military and Installation Contracting Command (MICC) Center– Fort Liberty

Client Principal Contact: Alfred R. Sebile, Contact Specialist

Client Email: alfred.r.sebile.civ@mail.mil

Client Phone: 910.643.3702

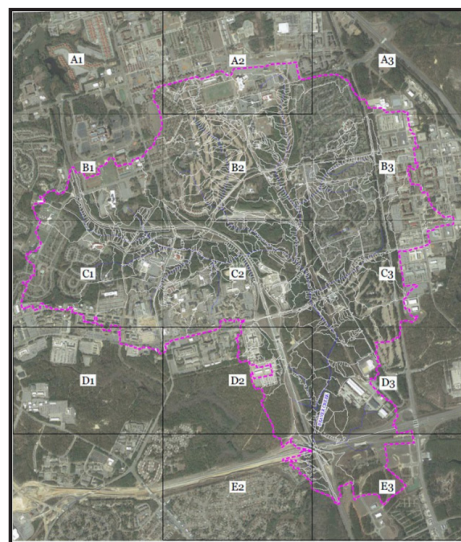
CATLIN was contracted by Fort Liberty Army Base, North Carolina to assess the Beaver Creek Watershed. The watershed is over 3,722 acres (5.82 square miles) in drainage area and includes 63,000 feet of modeled stream channel which ultimately drains to McFayden Lake.

Once CATLIN characterized the condition of the watershed, further assessment for the locations for potential stormwater BMPs was undertaken. This

was completed through a series of detailed evaluations which assessed the need and potential across the watershed, specifically focusing on reducing flood risk.

The watershed was evaluated based on the EPA Stormwater Management Model (SWMM) developed in 2019 and field investigations performed by CATLIN to characterize existing conditions and determine locations for potential stormwater detention and infiltration Best Management Practices (BMPs). The assessments of existing conditions and potential for stormwater BMP locations were then collectively reviewed and ranked to arrive at the ultimate objective of identifying stormwater BMPs that will have the most effect on areas with the greatest need for flooding relief within the watershed. Reducing flooding at the Reilly Road and Gruber Road crossings is of the utmost importance because these roads greatly affect traffic circulation when they are flooded.

Beaver Creek



Beaver Creek Watershed Grid Map

A Watershed Study Report was prepared and submitted to Fort Liberty. Post-modeling field visits were conducted to verify proposed BMP dimensions, and conceptual drawings were prepared for approximately 20 BMPs. These drawings will assist the client in their efforts moving forward to implement the suggested measures.

The SWMM model results and correlating plans were included in a formal report, which summarized the pre and post improvement conditions for the Beaver Creek Watershed demonstrating the impact the measures will have on potential future flooding events.

3. MCAS Cherry Point- Stormwater Drainage Network Assessment and Design

Marine Corps Air Station (MCAS) Cherry Point, NC

Client Entity Name: Whiting-Turner Contracting Company

Client Principal Contact: Bristol Reynolds, Project Manager

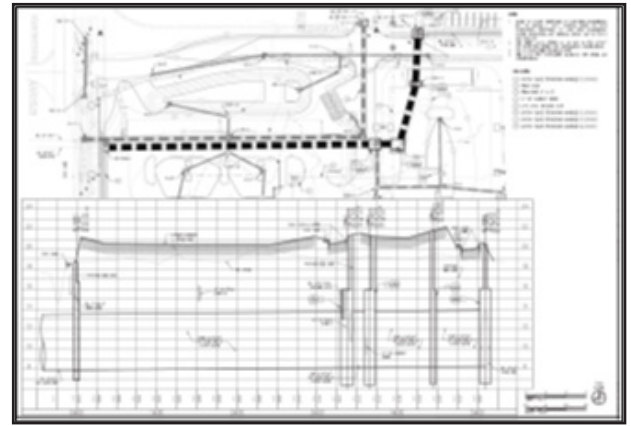
Client Email: Bristol.Reynolds@whiting-turner.com

Client Phone: 410.365.8580

Hurricane Florence made landfall near Wrightsville Beach, NC in September 2018 as a Category 1 storm and produced extensive wind damage, storm surge of 9-13 feet and rainfall of 20-30 inches. Massive flooding, downed trees and power outages occurred at MCB Camp Lejeune, MCAS Cherry Point and outlying areas. The Design-

Build construction team at MCAS Cherry Point was led by Whiting Turner and CATLIN provided Civil Engineering, Geotechnical Engineering and Permitting services.

CATLIN prepared a condition assessment report for an existing storm pipe system to determine if replacement was recommended. The system consists of 54" circular concrete pipe and 95" x 67" corrugated metal arch pipe trunk lines. CATLIN visually assessed the storm drain lines and inlets where photographs and camera footage was provided. Survey and available drawings were reviewed and estimated the age of the concrete pipe between 40 and 80 years old, while the corrugated metal arch pipe approximately 30 years old. Both pipe and inlets were reviewed.



*Construction of the Storm Drain Network
completed in early 2023*

Based on the age and visible condition of the pipes, both were recommended for replacement due to pipe separations, corrosion, and visible conflicts. NOTE:

Department of Defense and Department of the Navy principles for high performance and sustainable building project requirements were included in the design and construction of the project. The site sustainability design was in accordance with UFC 3-210-10, Low Impact Development (LID), which provides the criteria necessary to comply with the stormwater requirements of Section 438 of the Energy Independence and Security Act (EISA) of 2007. The design evaluated all technically feasible solutions to enhance stormwater runoff and incorporate LID principles to the maximum extent possible. LID principles implemented included relative flat vegetated buffers to maximize sheet flow, and the use of open channel systems and infiltration. Identified constraints to implementing LID principles included high groundwater elevation in the central and eastern portions of the site.

CATLIN prepared the construction plans for the replacement of the existing storm pipes. Although a hydrologic/hydraulic analysis was recommended, the Government elected to do a straight replacement of the existing pipes. The replacement pipe went back in exactly the same location as the existing pipe, with same inverts and structure configurations. CATLIN prepared full construction plans for the replacement storm pipe and coordinated with the structural designer for details. Deliverables consisted of a letter report, engineering drawings and annotated survey, pipe segment photographs, and manhole and inlet photographs.

4. Bladen County- White Oak Levee Project

Kelly, NC

Client Entity Name: County of Bladen

Client Principal Contact: Charles Peterson,
County Manager

Client Email: cpeterson@bladencc.edu

Client Phone: 910.862.6701

The White Oak Dike was removed from the Rehabilitation & Inspection Program (RIP) PL 84-99 in 2001 due to significant deficiencies including man-made breaches, vegetation, and erosion. The County desired to have the White Oak Dike accepted back into the PL 84-99 by the USACE Wilmington District. CATLIN provided AE services to the County of Bladen to prepare engineering plans and details for repairs to the White Oak Dike in Bladen and Pender Counties.

CATLIN performed an aerial survey, collected field data through geotechnical investigations, prepared engineering plans for repairs and submitted a Letter of Intent (LOI) to the USACE.

CATLIN also coordinated a subcontractor to inspect all storm sewers including field measurements and CCTV, with findings compiled in a comprehensive report.

The work focused on the unacceptable and minimally acceptable culverts/discharge pipes, unauthorized encroachments, and erosion/bank caving locations. A local surveyor provided a topographic survey of the levee which allowed CATLIN to provide a 50-scale orthophotography and 1-ft contour topographic survey was provided for use in the design repairs. CATLIN's assembled team met all project delivery objectives on time and within budget.

4) Familiarity with Locality

A. LUMBERTON/MUNICIPALITY EXPERIENCE

With nearly 40 years of expertise across North Carolina, including extensive work in Lumberton and the surrounding areas, CATLIN offers a deep understanding of local regulations, permitting requirements, hydrogeological conditions, and construction materials and practices. Our team has cultivated longstanding relationships with local regulatory agencies and utility providers, ensuring seamless project execution. Over the years,

we have delivered successful projects for municipalities such as Wilmington, Oak Island, Pinehurst, Lumberton, Bolivia, and Southport, highlighting our capacity to navigate municipal-specific challenges.

CATLIN has completed **89 projects in Lumberton**, with over half accomplished in the last decade. Notably our work on the **REMPAC Foam LLC Site**, conducting flood mitigation for the City of Lumberton was completed between 2019 and 2021.



Project Highlights: REMPAC Foam LLC, Hydraulic Study and Flood Mitigation Control Design



REMPAC Foam Site Flooding

The hydraulic study assessed the adequacy of existing and proposed flood mitigation measures, including an earthen berm, bypass ditch, stormwater retention pond, flood gates, and a sheet pile retaining wall. Using LIDAR data, topographic and wetlands surveys, and rainfall data from NOAA and historical records, CATLIN developed hydrologic and hydraulic models to simulate storm events from 10-year to the 1,000-year flood levels. The analysis incorporated field observations and calibrated storm models based on real flood events.

Key aspects included:

Hydrologic & Hydraulic Analysis: Modeling storm events using Autodesk Civil 3D to evaluate existing conditions and proposed solutions, including a bypass ditch to reroute runoff around the berm.

Site-Specific Data Collection: Coordinated topographic and wetland surveys, documented flood patterns, and analyzed soil characteristics to inform the design process.

Design Solutions: Proposed a comprehensive flood protection system, including an earthen berm with a sheet pile wall, bypass ditch, and retention pond. This system was engineered to safeguard the site against extreme storm events.

Permitting and Implementation:

CATLIN seamlessly navigated permitting requirements by coordinating with NCDEQ, NCDOT, and USACE to address regulatory considerations, including jurisdictional wetland impacts. Once the hydraulic study was approved, we advanced to the design phase, which encompassed:

- Comprehensive geotechnical investigation.
- Design and permitting documentation.
- Bidding assistance and construction oversight.

Our meticulous attention to detail ensured that the flood mitigation system was both cost-effective and resilient, offering long-term protection for the site.

Additionally, CATLIN is prepared to work closely with the City of Lumberton to follow funding requirements for utilizing the City's Drainage Fund. If requested, CATLIN is equipped to prepare quarterly reports, annual financial reporting, reimbursement requests, acting as a liaison between the City and regulatory agencies, coordinating meetings, and completing final reports for grant closeout.

Our Contract Manager, Mr. Nichols, will work closely with our Accounting and Cost Control Team to maintain an Excel spreadsheet reporting CATLIN's progress and ensuring that any grant tasks, if applicable, are completed within the allocated timeframe.

"All invoices/billings were received in a timely manner. Project staff were very knowledgeable of all subject matter and associated regulations, criteria, etc. CATLIN was very effective at managing subcontractors on this multi-faceted, complicated task order and demonstrated effective leadership, management, and control of the project. Interactions between the Contractor and the Government were exceptional. Contractor did a great job communicating with all members of the team."

- *Tamara Murphy, Lead AE Coordinator, Engineering Branch, USACE SAW (Reported via Contractor Performance Assessment Reporting System (CPARs)).*

5) Hourly Rates

A. 2024 STANDARD FEE SCHEDULE

PROFESSIONAL SERVICES	HOURLY RATE
Engineer V	\$205.00
Engineer IV	\$170.00
Engineer III	\$150.00
Engineer II	\$120.00
Engineer I	\$100.00
Geologist V	\$200.00
Geologist IV	\$165.00
Geologist III	\$145.00
Geologist II	\$115.00
Geologist I	\$95.00
Scientist/Technician V	\$135.00
Scientist/Technician IV	\$115.00
Scientist/Technician III	\$100.00
Scientist/Technician II	\$80.00
Scientist/Technician I	\$65.00
EXPENSES	
Per Diem	\$170/day
Mileage - Truck Only	\$200/mile
Mileage – Hauling Equipment	\$3.50/mile
Subcontractor Costs, Laboratory Fees & Materials	Cost Plus 15%

This schedule is effective through December 31, 2024, and is subject to change on an annual basis.

Lumberton City Council

Item: IV.I.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Public Works

Submission Date: 01/02/2025

Subject: Engineer Selection for the Bailey Road - Five Mile Branch Hydraulic Study

Summary/Background of Subject Matter:

In December, Public Works received four responses to our RFQ for the Bailey Road Culvert - Five Mile Branch Hydraulic Study. Qualification Statements were received from: The Wooten Co., Atkins Realis, Catlin Engineers and LJB Engineers. Public Works is recommending Council select Atkins Realis for the hydraulic study project. We have worked with each of the interested firms on similar projects, however, Atkins Realis is the firm with the most familiarity of this specific area. As part of the floodgate impact study, they have performed hydraulic analysis of the Five Mile Branch up to Highland /Inverness neighborhood already. Once Council has selected the most qualified firm, Public Works will negotiate a scope and fee agreement and bring this back to Council for approval.

Staff Recommendation:

Public Works is recommending Council select Atkins Realis as the engineer for the Bailey Road - Five Mile Branch Culvert hydraulic study project.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Public Works

ATTACHMENTS:

1. AtkinsRealis Proposal - City of Lumberton Hydraulic Study for Five Mile Branch Culvert
2. Lumberton - Hydraulic Study Five Mile Branch Culvert Bailey Road WOOTEN
3. Five Mile Branch SOQ_CATLIN
4. LJB_City of Lumberton_Bailey Culvert Study

December 2, 2024

AtkinsRéalis

1616 E. Millbrook Road,
Suite 160
Raleigh, NC, 27609, US

Rob Armstrong, PE
Public Works Director, City of Lumberton
rarmstrong@ci.lumberton.nc.us

RE: Hydraulic Study of the Five Mile Branch Culvert at Bailey Road

Dear Mr. Armstrong and selection committee members,

AtkinsRéalis USA Inc. (formerly Atkins) is excited to submit our qualification package for the hydraulic study of the Five Mile Branch Culvert in the Walnut Cove neighborhood.

AtkinsRéalis recognizes the City of Lumberton's Public Works department objective of providing excellent Customer Service while meeting and satisfying the needs of the customer and the community, and the interest in improving neighborhood and street drainage along the Five Mile Branch where it crosses Bailey Road. We believe we are uniquely qualified to help the department meet its objective while completing this project. Through this study, we will identify solutions to the persistent flash flooding that affects streets and properties along the Five Mile Branch in Walnut Cove.

Our proposed project team has decades of experience conducting similar studies. Most of our project team has also contributed to the flood gate project in Lumberton. AtkinsRéalis will work with McGill Associates, who will support the project's topographic surveying needs. Through our previous experience working with the City of Lumberton, we have come to develop an intimate understanding of the challenges the community faces when it comes to flooding. We understand the varied stakeholders who are involved in some local projects, like the flood gate project, and have pre-existing relationships with them that will enable us to move quickly on this project.

In response to the Request for Qualifications (RFQ), we have assembled a diverse team that is poised to respond quickly and professionally. AtkinsRéalis' team will be led by the **Project Manager, Rahish Khatri, PE, CFM**, who brings a wealth of experience in project management, planning, and design for projects with state and municipal clients. The proposed team will fulfil all the requirements identified in the RFQ. The AtkinsRéalis team looks forward to leveraging our previous experience and the area-specific expertise and insights gained from the flood gate study to conduct this hydraulic analysis.

Please let us know if you have any questions or need any clarifications. I may be reached at 919.431.5253 or Amit.sachan@atkinsrealis.com. We look forward to the opportunity to serve you.

Sincerely,



Amit Sachan, PE, CFM
Principal-in-Charge



Rahish Khatri, PE, CFM
Project Manager

OUR PROMISE TO YOU
We take our commitments to heart. This LOI is intended to show our commitment, qualifications, and interest in performing all Tasks as outlined in your Proposed Scope of Work. We are committed to making our resources available to deliver this project quickly, efficiently and in a high-quality manner.

SECTION 1. TECHNICAL APPROACH/UNDERSTANDING OF THE PROGRAM:

Describe the understanding and approach to be taken in addressing the proposed scope of work. This description is to include delineation of specific tasks to be undertaken.

The Walnut Cove neighborhood (Figure 1) has been experiencing recurring flooding, requiring a comprehensive hydraulic study to assess the existing conditions and identify possible solutions. The AtkinsRéalis team understands the significance of the hydraulic study in determining potential improvements to address street and property flooding in the Walnut Cove neighborhood. Following tasks will need to be completed in support of this flood study:

Task 1. Data Collection and Review

The AtkinsRéalis team will perform data collection and review. Data to be collected and reviewed include:

- GIS and as-built data of the existing structures
- Existing hydrologic and hydraulic studies for the study area
- High water marks

We will review the data to identify any gaps or issues in the data, and ensure those gaps or issues are addressed before moving forward.



Figure 1. Walnut Cove Neighborhood

Task 2. Survey

The AtkinsRéalis team conducted a field survey of the existing structures and channel cross sections for the Lumberton Flood Gate study. The team also collected high water mark information from Hurricanes Florence and Matthew. AtkinsRealis team will review the available data, identify any gaps, and perform additional field surveys and site investigation to supplement the existing conditions model. This will give the team an on-the-ground understanding of the Walnut Cove neighborhood drainage system and its unique topography.

Survey data to be collected include:

- Existing drainage structures, including ditches, culverts and other structures
- Channel cross-section at critical locations along the Five Mile Branch

Task 3. Hydrologic and Hydraulic Analysis

AtkinsRéalis has already conducted a detailed hydrologic and hydraulic analysis in this area to support the design of the proposed City of Lumberton flood gate at the I-95/CSX Railroad underpass. The hydrologic and hydraulic models developed for the flood gate study were calibrated and validated by comparing the simulated peak stages and flows to the observed data and high water marks. Hydraulic simulations were performed to estimate peak water surface elevations for events ranging from the 100-year flood to the Probable Maximum Flood (PMF), including the flood of record.

Existing flood boundaries (Figure 2) from this prior study show extensive overland flooding, complex flow patterns, and potential backwater effects from downstream tributaries and the I-95 crossing. These conditions indicate that 2D modeling is likely needed to accurately assess flooding in this area.

AtkinsRéalis can utilize the two-dimensional (2D) hydraulic modeling from the City of Lumberton flood gate study as a starting point for the hydrologic and hydraulic analysis. The 2D model will be updated with the latest survey and as-built data. Simulations will be performed for the 10 year, 20 year, 50 year, and 100+ year return periods. The results of the 2D modeling will be validated with FEMA's one-dimensional (1D) model, if necessary.

Task 4. Alternatives Evaluations

AtkinsRealis will develop and model potential mitigation measures based on feasibility, cost, and potential impacts. The proposed alternatives will aim to meet the City's desired level of service for Bailey Road and other roadways in the Walnut Cove neighborhood. Typical alternatives will explore upsizing existing structures, supplemented by channel modifications, as needed, to improve flow conveyance. Based on the alternatives analysis, AtkinsRéalis will provide recommendations along with preliminary cost estimates for completing the project(s).

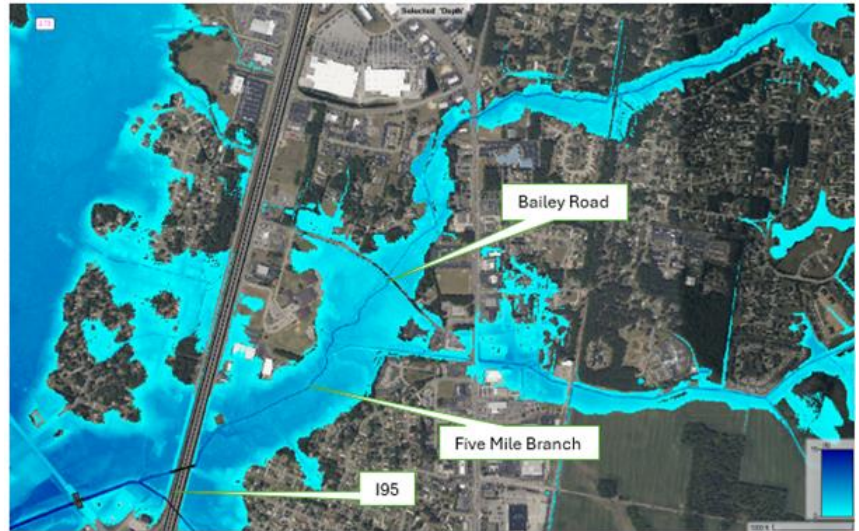


Figure 2. 100-year Flood Depth from the Lumberton Flood Gate Study (HEC-RAS 2D model results)

Task 5. Grant Administration (Optional)

The AtkinsRéalis team is well versed in all aspects of grants administration. Our team works closely with local and state government clients around the country to identify grant opportunities to reduce flooding and improve resiliency.

In North Carolina, we have worked with North Carolina Emergency Management, supporting Hazard Mitigation Grant Program (HMGP) and Flood Mitigation Assistance (FMA) application development. This means that our team has worked with the state and local governments to identify potential grant eligible projects, gather all the required supporting documentation, write the application and complete the required benefit-cost analyses (BCA), and respond to any further requests for information. We have experience working with local governments, like the Town of Smithfield, on the implementation of HMGP-funded projects, which include project management and project documentation, such as monthly project reports and request for reimbursement.

We also work with federal agencies, such as the Federal Emergency Management Agency (FEMA), to develop policies and trainings for their grant programs, such as their HMGP and FMA. We have also supported technical assistance around the country, including through the FEMA Helplines that are available to local and state governments to receive project and BCA guidance.

Through these experiences, our team has developed a deep understanding of how to translate the needs of communities to fundable grant applications.

We propose matching this hydraulic study with potential future funding opportunities and designing it accordingly. By doing so, the City of Lumberton can proactively work towards securing funding for any resultant recommended project(s) by ensuring they have the information needed to prove eligibility and make their project competitive.

Task 6. Stakeholder Coordination Support (Optional)

The AtkinsRéalis team will support the City's stakeholder coordination needs. We understand that people may have questions about this study, and are happy to support the City in providing updates to the City Council and/or property owners or residents of Walnut Cove. We can help provide supporting documentation, presentations, or answer questions to ensure the project is well understood and supported.

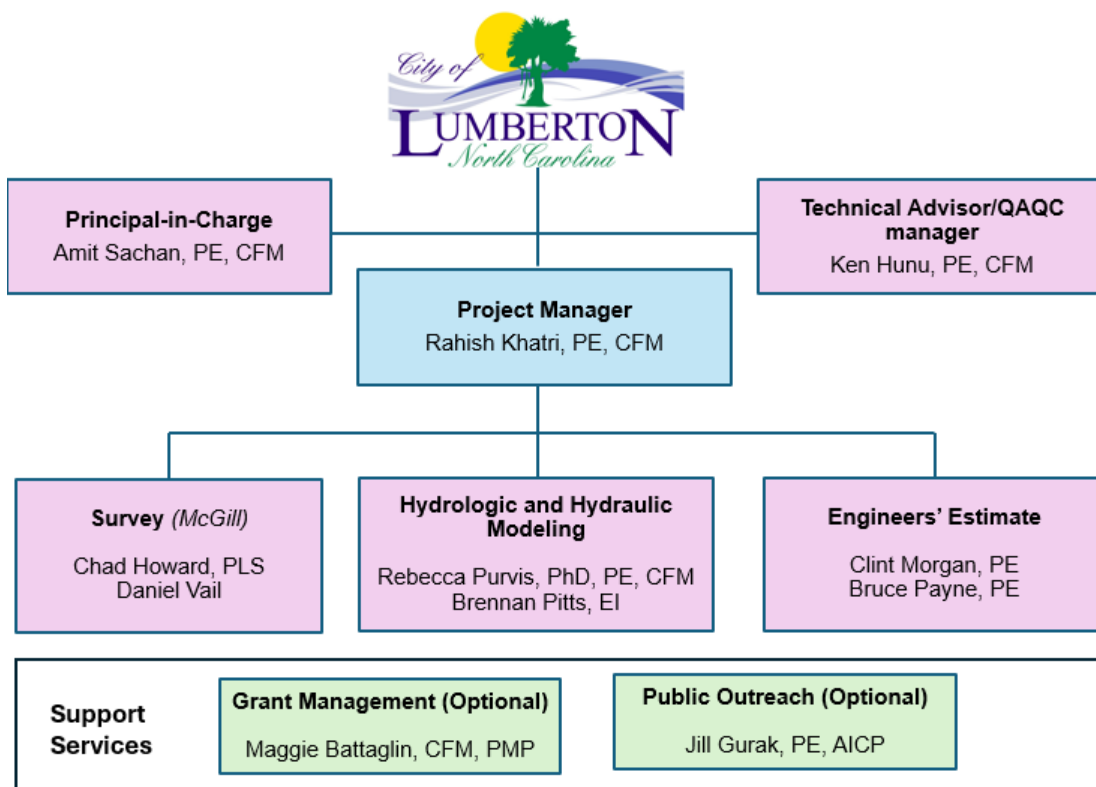
Task 7. Reports and Findings

AtkinsRéalis will create a detailed report documenting the data used, the methods used, assumptions, results, recommendations, and preliminary cost estimates. AtkinsRéalis will provide a draft of the report to the City for review and address any comments from the City prior to finalizing the report.

SECTION 2. WORK MANAGEMENT PLAN/EXPERIENCE OF PROPOSED PERSONNEL

Describe the management plan to be used, staffing configurations, etc. specifying work to be completed relative to the City of Lumberton. Brief resumes of the individuals involved in the project are required, including similar project experience for each individual.

AtkinsRéalis offers an experienced team led by our project manager, **Rahish Khatri, PE, CFM**. With over 16 years of experience, Rahish knows how to achieve project objectives while building relationships. Rahish will be supported by local staff along with our subconsultant partners with proven expertise on similar projects. Our team consists of **Certified Floodplain Managers (CFM)** professionals which will ensure that floodplain compliance considerations remain a priority during the study.



Rahish will be supported by our subconsultant partner firm, **McGill Associates**. McGill maintains multiple offices in North Carolina.

McGill Associates (McGill)

McGill Associates (McGill) serves public and private clients throughout the Southeast. The range and depth of McGill's expertise includes a wide spectrum of engineering services, land planning and recreation, and consulting services. Our foundation is built on creating comprehensive solutions in a personal way. Collaboration is the key to our success and clients are an integral part of every project at McGill. By building lasting relationships with communities, we understand our clients' visions and project goals. Our dedicated project team focuses on delivering a customized solution for each unique community. We help our clients identify challenges, formulate responsive solutions, and manage successful project completion. Through partnership, we shape the best results for each client and community.

Led by Project Manager, **Rahish Khatri, PE, CFM**, AtkinsRéalis offers a highly skilled, multi-disciplinary team of engineers, planners, scientists, and specialists, providing comprehensive engineering support services as outlined in your Request of Qualifications (RFQ). Brief resumes of key staff are included in the graphic below.



Principal-in-Charge: Amit Sachan, PE, CFM has 23 years of experience with a strong background in riverine modeling, stream restoration, stormwater capital improvement, erosion control, and roadway drainage projects for municipal, state, and federal clients. Additionally, his experience includes various projects on roadway drainage/hydraulics/erosion control design, stormwater system master planning, H&H modeling and mapping using GIS, stormwater management, stream restoration, and capital improvement projects.



Project Manager: Rahish Khatri, PE, CFM has 16 years of experience, and he specializes in floodplain 1D/2D modeling, stormwater drainage, roadway drainage, and dam breach modeling. Served as a project manager and technical lead for North Carolina Floodplain Mapping Program (NCFMP) Map Maintenance, Letter of Map Change (LOMC), NCDOT floodplain management, and stormwater projects.



Technical Advisor & QA/QC Manager: Ken Hunu, PE, CFM has 19 years of experience, and he specializes in water resources systems engineering, 2D hydrodynamic modeling including storm surge, wave and dam breach modeling, H&H analysis, roadway drainage design, climate change resiliency analysis, and integrated water resources management. Ken's experience includes stormwater management for coastal floods, flood hazard assessments, and flood mitigation analysis using hydrodynamic models.



Hydrologic and Hydraulic Modeling Lead: Rebecca Purvis, PhD, PE 11 years of water resources engineering. Specialized in hydrologic and hydraulic analysis, stream restoration, stormwater design and management, and water use management. Research background in vegetative buffers and stormwater management; particularly bioswales.



Roadway Construction Estimate Lead: Clint Morgan, PE brings 28 years of experience in roadway design, having been a key contributor to the City of Raleigh Morgan Street two-way conversion project. He was responsible for the roadway design elements and led the roadway portion of the English Road/Martin Luther King, Jr. Road two-way conversion scoping task in High Point, NC.



Hydrologic and Hydraulic Modeling: Brennan Pitts, EI has 2 years of experience in water resources engineering. Mr. Pitts is experienced in 1D and 2D hydraulic modeling, GIS shapefile processing, MT-2 CLOMR/LOMR reviews, updated detailed analyses, and bridge scour analysis. He is primarily responsible for hydraulic model and shapefile production and revision as well as map revision case review.



Grant Application and Stakeholder Coordination: Maggie Battaglin, CFM, PMP 8 years' experience working with communities in eastern North Carolina on flood mitigation projects. Subject matter expert for FEMA's Hazard Mitigation Assistance program and experience stakeholder engagement for the North Carolina Office of Recovery and Resiliency.



Survey: Chad Howard, PLS (McGill) has worked in the surveying field for over 28 years. During this time, he has managed over \$20,000,000 worth of successful land surveying and subsurface utility engineering (SUE) projects. In his role, Chad has been responsible for project estimating, contract negotiation, billing, client relations, QA/QC assurance, computing and adjusting boundary problems, and drafting and reviewing finalized plats.

PROJECT SCHEDULE

The project will proceed as dictated by the City. The selected Engineering firm shall be flexible in the commitment to start providing engineering services immediately, while having enough staff to support completing all work at a reasonable time.

We understand that this project is critical to reducing the risk of street and property flooding in the Walnut Cove neighborhood. Given its importance, we understand the city is looking to begin the project as soon as possible. We propose the following schedule with anticipated start in January 2025 and project completion in June 2025:

PROJECT TIMELINE												
	Jan-25		Feb-25		Mar-25		Apr-25		May-25		Jun-25	
Notice to Proceed	*											
Project Management												
Bi-weekly Coordination												
Data Collection												
Survey												
Hydraulic Modeling & Report												
<i>Draft Model Results</i>												
<i>Final Model Results and Report</i>												
Grant Management												
Stakeholder Coordination												

SECTION 3. EXPERIENCE OF THE FIRM

Provide a brief description of experience specific to the types of projects included in the SOQ. Please list a reference for each project. Make sure the contact listed for each project was employed at time the firm provided the services. If the local staff person who is most familiar with your work is no longer with the locality, include current contact information or indicate why the person can no longer be contacted.

The AtkinsRéalis team has a strong track record of successfully delivering a diverse range of projects in North Carolina and across the nation. Recent highlights include the West Lumberton Levee Flood Gates Design, stream bank stabilization and drainage improvement projects for the City of Greensboro, and specialized expertise in North Carolina Floodplain Management Program's Statewide Flood Risk Management projects, as detailed in the project descriptions below.

AtkinsRéalis: West Lumberton Levee Flood Gates Design Services – City of Lumberton, NC

AtkinsRéalis is providing engineering services for the planning and design of flood gate closure structures which are considered key components of the City's flood prevention resiliency efforts. Primarily funded by federal and foundation grants, this project requires collaboration with multiple federal and state agencies to implement citywide structural and non-structural measures to mitigate flooding. Our services include:



- NFIP and floodplain management services. AtkinsRéalis has performed advanced hydrologic and hydraulic modeling (H&H) to develop HEC-RAS 2D models of the Lumber River to support design of two flood gate closure structures at the I-95/CSX Railroad underpass where an embankment opening allows floodwaters to move into interior drainage areas of the existing levee system.
- Dam and levee safety services, design of the flood gate structures incorporate USACE design standards and conform with 44 CFR Part 65.10 requirements of the NFIP.
- Project implementation support and general engineering services. AtkinsRéalis is coordinating all land surveys, site engineering, geotechnical, and structural engineering efforts.

Contact

Rob Armstrong, PE
910.671.3800
rarmstrong@ci.lumberton.nc.us

Team Members Involved

- Amit Sachan, PE, CFM
- Ken Hunu, PE, CFM
- Rahish Khatri, PE, CFM
- Rebecca Purvis, PhD, PE, CFM
- McGill (Survey & Site/Civil Design)

Dates

Start: 2019
End: Ongoing

AtkinsRéalis: City of Greensboro Avondale Drive Drainage Improvement Study – City of Greensboro, Guilford County, NC

To evaluate existing flooding, AtkinsRéalis team was tasked with modeling the stormwater drainage system and stream crossings. AtkinsRéalis is performing “closed system” modeling using Bentley’s StormCAD and “open channel” modeling using USACE’s HEC-RAS model. Both open channel and closed system modeling were conducted based on the existing drainage system to provide more accurate and reliable results, ensuring the client has the best data to inform their decision making. AtkinsRéalis’ team will provide recommendations for system improvements to alleviate localized flooding.



Contact

Johnnie Hill
336-373-4653
johnnie.hill@greensboro-nc.gov

Team Members Involved

- Amit Sachan, PE, CFM
- Ken Hunu, PE, CFM
- Rebecca Purvis, PhD, PE, CFM

Dates

Start: 2019
End: 2022

AtkinsRéalis: Streambank Stabilization Projects – City of Greensboro, Guilford County, NC

City of Greensboro has tasked AtkinsRéalis to address streambank stabilization at three sites: Webster Road, Woodcroft Circle, and Cottage Place. Streambank erosion at all these sites have led to loss of private property and poses risk to public utilities, including sanitary sewer and water lines. To prevent further loss to the private property and protect existing public utilities, the AtkinsRéalis’ team is preparing H&H modelling, a flood study (NoRise or Conditional Letter of Map Revision/ Letter of Map Revision [CLOMR/LOMR]), conceptual plans, construction plans, erosion and sedimentation control plans, 401/404 permitting, technical specifications, engineers’ opinion of probable costs, and bidding support.



AtkinsRéalis has prepared design alternatives to restore the channel to a more stable cross section configuration and armor the banks to prevent future erosion. Erosion countermeasures options were evaluated along and presented to the city along with planning level cost estimates. Once the preferred options are chosen by the city, AtkinsRéalis is preparing final design using natural channel design techniques for design of a stable channel.

Contact

Johnnie Hill
336-373-4653
johnnie.hill@greensboro-nc.gov

Team Members Involved

- Amit Sachan, PE, CFM
- Ken Hunu, PE, CFM
- Rebecca Purvis, PhD, PE, CFM

Dates

Start: 2019
End: 2024

AtkinsRéalis: NCFMP Statewide Flood Risk Management IDIQ: North Carolina Floodplain Mapping Program (NCFMP) Flood Contract 2022

The AtkinsRéalis team was awarded Statewide Flood Risk Management IDIQ contract in 2017 and All Hazards Risk IDIQ Contract in 2020. Under both contracts, the AtkinsRéalis team provides support services for the NCEM-NCFMP's program to acquire, generate, maintain, update, and disseminate data, analyses, and maps associated with the identification, vulnerability exposure, risk assessment, and mitigation of all water and non-water hazards in North Carolina. The data acquisition, analyses, mapping, and mitigation planning was to be focused on, but not be limited to riverine flooding, coastal flooding, coastal erosion, storm surge, dam inundation and emergency action plans, levee inundation, debris flow, sea level rise, and snowmelt flooding. Scope included data acquisition capabilities necessary to generate risk analyses, reports, and maps. Assignments under this contract included map maintenance updated for five counties, dam break modeling for 500+ dams, installation of 15+ gauges, LOMC QC of 19 cases, review of rain-on-grid models and basin studies, Independent QA/QC of H&H studied for nine counties.

<u>Contact</u>	<u>Team Members Involved</u>	<u>Dates</u>
Tom Langan, PE, CFM 919.825.2328 tom.langan@ncdps.gov	• Amit Sachan, PE, CFM • Ken Hunu, PE, CFM • Rahish Khatri, PE, CFM • Rebecca Purvis, PhD, PE, CFM • Brennan Pitts, EI	Start: 2017 End: Ongoing

SECTION 4. FAMILIARITY WITH LOCALITY

Include a list of project experience conducted within the City of Lumberton. Describe any other grant project experience or related work that indicates the firm's level of understanding and familiarity with the City.

Flood Gate Project

AtkinsRéalis is providing engineering services for the planning and design of flood gate closure structures, which are vital to the City's flood prevention and resiliency initiatives. Primarily funded through federal and foundational grants, the project involve collaboration between various federal and state agencies to implement both structural and non-structural measures aimed at mitigating flooding across the city. Our services include:

- NFIP and floodplain management services. AtkinsRéalis has performed advanced hydrologic and hydraulic modeling (H&H) to develop HEC-RAS 2D models of the Lumber River to support design of two flood gate closure structures at the I-95/CSX Railroad underpass where an embankment opening allows floodwaters to move into interior drainage areas of the existing levee system.
- Dam and levee safety services, design of the flood gate structures incorporate USACE design standards and conform with 44 CFR Part 65.10 requirements of the NFIP.
- Project implementation support and general engineering services. AtkinsRéalis is coordinating all land surveys, site engineering, geotechnical, and structural engineering efforts.



Internal Drainage Analysis

AtkinsRéalis conducted internal drainage analysis to evaluate the impacts of the floodgate on the internal drainage system and to explore alternatives for mitigating these effects. Two scenarios were analysed. The first scenario assumes that rainfall within the protected area occurs at a time when the Lumber River is not overtopping its banks and hence the flood gate and sluice gates are open. This scenario also assumes that the culverts through the I-95 opening are fully functional. The second scenario assumes that rainfall within the protected area occurs at a time when the Lumber River is overtopping its banks, and the flood gate and sluice gates are closed. Under this scenario, the culverts through the I-95 opening are not functional due to high tailwater conditions. Based on the modeling results, increases in flooding levels within the protected area under the first scenario are negligible. Flooding levels within the protected area will be worsened under the second scenario. To mitigate against the increases in flooding levels within the protected area under the second scenario, the city will need about 4 pumps situated at key locations to prevent flooding. The locations were determined by comparing the flooding depths with and without the floodgates/sluice gates/culverts closed.

Grants management experience

Our project team includes **Maggie Battaglin, CFM**, who joined AtkinsRéalis recently. Previously, she worked as the **Director of Mitigation** at the **North Carolina Office of Recovery and Resiliency**. In her 8 years working for the state of North Carolina, she worked closely with Lumberton officials, including Deputy City Manager Brandon Love, City Attorney Holt Moore, and Stephanie Canady with Planning and Neighborhood Services, on several flood mitigation projects. These projects include the Strategic Buyout Program, which was a voluntary program that purchased flood-prone properties to convert them to greenspace. She also worked with the City of Lumberton following Hurricanes Matthew and Florence to identify properties to be bought out or elevated through the Federal Emergency Management Agency's (FEMAs) Hazard Mitigation Grant Program. She has hosted community meetings in Lumberton and has presented to the City Council's Planning Board. She is an experienced technical communicator who can easily and approachably explain complex projects to individuals with varied prior knowledge.

APPENDIX

HOURLY RATE SCHEDULE

Include a list of hourly rates for all levels of employees that might work on the project.

Table below lists hourly rate schedule for the job classifications to be utilized on this project.

Job Classification	Hourly Rate
Principal In Charge	\$228
Project Manager	\$202
Technical Advisor	\$256
Sr. Engineer I	\$135
Sr. Engineer II	\$162
Sr. Engineer III	\$184
Engineer II	\$111
Engineer III	\$140
Administrative Support	\$65
Sr. Administrative Support	\$90



CITY OF LUMBERTON

**STATEMENT OF QUALIFICATIONS –
HYDRALUIC STUDY OF THE FIVE MILE
BRANCH CULVERT AT BAILEY ROAD
DECEMBER 2, 2024**

Wooten

COVER LETTER

December 2, 2024

Rob Armstrong
City of Lumberton
215 S Cedar St
Lumberton, NC 28359



RE: Statement of Qualifications - Hydraulic Study of the Five Mile Branch Culvert at Bailey Road

Dear Mr. Armstrong:

The Wooten Company is pleased to submit our qualifications to provide professional engineering services for the City of Lumberton's Hydraulic Study of the Five Mile Branch Culvert at Bailey Road. We have been working with the City on various infrastructure improvement projects since 2010. We are excited for the opportunity to continue assisting Lumberton in this critical stormwater study.

On the following pages of this proposal, we will outline our plan to carry out the hydrologic and hydraulic study to determine the design flows expected at the Five Mile Branch crossing beneath Bailey Road. Determining the required capacity of this dated crossing is critical in determining appropriate rehabilitation or replacement possibilities ensuring sufficient conveyance beneath the roadway. The results of the study (i.e. anticipated water surface elevations) are also critical in developing effective solutions to localized flooding issues within the Walnut Cove neighborhood. The existing multi-barrel corrugated metal culverts beneath Bailey Road restrict stormwater flows in the Five Mile Branch, and are nearing the end of their anticipated serviceable life. We are pleased to have the opportunity to assist the City in this study and beginning to address this recurring flooding problem.

Our project team will be lead by Hans Benford from our Wilmington Regional Office and will include John Grey PE who has worked closely with the City since 2010. We will complete the study of the Five Mile Branch upstream of this location and begin to address localized drainage issues within the Walnut Cove neighborhood. We are committed to clear communication, prompt coordination, and effective results, and hope that we can clearly demonstrate this in the following proposal. We invite you to reach out to us at any point during your selection process if you have questions about our proposal.

Best Regards,

THE WOOTEN COMPANY

A handwritten signature in blue ink, appearing to read 'W. Brian Johnson'. The signature is fluid and stylized, with a long horizontal line extending from the end.

W. Brian Johnson, PE - President
919.828.0531 - bjohnson@thewootencompany.com
120 N. Boylan Ave. Raleigh, NC 27603

GENERAL INFORMATION

The Wooten Company is a privately held, multi-disciplinary firm with 92 employees focused on providing municipal engineering, surveying, and architectural services. Founded in 1936 and incorporated in 1949 in North Carolina, L.E. Wooten and Company (dba The Wooten Company) is now in its 86th year of continuous operation and is licensed by the State of North Carolina to practice engineering and surveying (NC Certificate of Registration F-0115), and architecture (NC Board of Architecture Certificate 50430).

A comprehensive range of capabilities including environmental engineering, general civil engineering, geomatics, mechanical engineering, electrical engineering, plumbing engineering, and architecture affords our clients a singular point of contact for a majority of their infrastructure needs, and therefore efficient and reliable solutions that keep the taxpayer front of mind.

SPECIALTIES

- ➔ Water and wastewater treatment
- ➔ Water booster pumping, storage and distribution
- ➔ Wastewater pump stations and collection
- ➔ Site/Civil design
- ➔ Stormwater conveyance and treatment
- ➔ Roadway design and pavement condition survey
- ➔ Infrastructure planning
- ➔ Preliminary engineering and environmental assessment documents
- ➔ Surveying and Geographic Information Systems
- ➔ Water/Wastewater system modeling
- ➔ Mechanical and HVAC design
- ➔ Electrical design



LOCAL OFFICE

272 N. Front St, Ste 401
Wilmington, NC, 28401
P: 910.660.0520

SUBCONSULTANT - SUNGATE DESIGN GROUP

Sungate Design Group, PA (SDG) is a SPSF firm that focuses exclusively on highway and site drainage design and its impacts. The engineering staff at SDG has extensive experience in NCDOT policies and procedures for highway drainage design and bridge and culvert analysis, stormwater management plans, FEMA regulations including MOA's with North Carolina Floodplain Mapping Program, environmental permit requirements, natural channel design, and erosion control. They are continually investigating new approaches, procedures, and products in order to provide the best service and design product for their clients.



CONTACT INFORMATION:

Joshua G. Dalton, PE, CPESC
Sungate Design Group, P.A.
905 Jones Franklin Road, Raleigh, NC
27606
(919) 859-2243 (phone)
jdalton@sungatedesign.com

TECHNICAL APPROACH / UNDERSTANDING

UNDERSTANDING

The City of Lumberton seeks to address flooding issues in the Walnut Cove neighborhood off of Bailey Road. Due to the area's close proximity to Five Mile Branch, a detailed hydrologic and hydraulic (H&H) study needs to be performed to determine the impact the Bailey Road culvert may be contributing to the flooding as a backwater/tailwater condition. This study needs to assess the total upstream drainage area contributing runoff to the Bailey Road culvert. This study will provide the hydraulic capacity necessary to convey peak flows from Five Mile Branch beneath Bailey Road without overtopping and causing flood elevations to impact Walnut Cove. Proposed drainage improvements within Walnut Cove will account for possible tailwater conditions caused by the downstream culvert. The approach outlined below details how The Wooten Company plans to execute the study and implement flood mitigation efforts within Walnut Cove.

DESIGN APPROACH

1. Kickoff Meeting & Data Collection - Upon a notice of award, we will bring our key design partners together to meet in person with City staff to review scope of work, budget and schedule. This initial step will involve meeting with the City at project inception to review and collect any information that the City may have regarding the specific area of concern within Walnut Cove and at the Bailey Road culvert. The Wooten Company will seek historical knowledge of flooding events, documented structural deficiencies, conditions, record drawings, existing system data, etc. that may support the hydrologic and hydraulic assessment.

2. Field Investigation/Survey - A field investigation with regard to location of the system components, existing maps and institutional knowledge will be collected. After this data is examined a more extensive effort is needed to gather all pertinent data (i.e. a topographical survey, boundary/ROW verification, stream cross sections, roadway cross sections, easements, SUE, geotechnical investigations, etc.

3. Data Assessment - Using the collected data, Sungate Design will develop a hydrologic and hydraulic (H&H) model as part of the study. This model will be used to evaluate proposed culvert improvements beneath Bailey Road and serve as the baseline for analyzing 10-, 25-, 50-, and 100-year design storm events. The assessment will determine whether the existing culvert capacity and upstream drainage system comply with current H&H and drainage design standards.

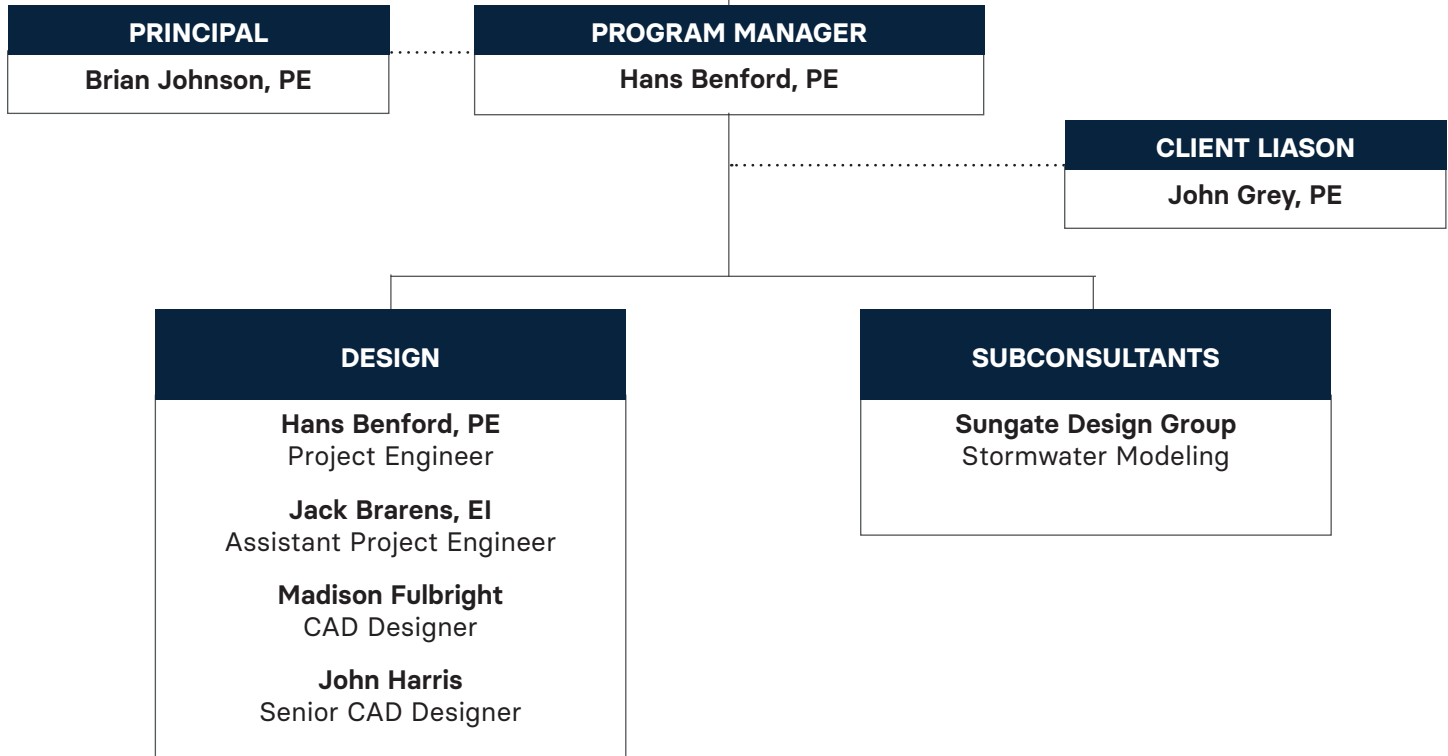
We plan to use modeling software such as HydroCAD, AutoCAD Storm Sewers, or USEPA SWMM for hydrologic model development. Additionally, HEC-RAS will be utilized by Sungate for 1-D modeling of Five Mile Branch and assessing culvert replacement

4. Summarize Findings - Once all field investigations have been completed, we will compile the information gathered during the investigation and summarize our findings for the City. This summary will indicate the preliminary drainage plan for culvert sizing and drainage improvements.

5. Recommended Culvert Actions & Preliminary Drainage Plan - Develop a comprehensive set of recommendations to address each identified issue. This plan will outline potential improvement options, tailored to the complexity of the problems. For instance, based on the age, condition, and material of the Five Mile Branch culvert(s), we anticipate the need for full replacement. However, for storm drains within Walnut Cove with structural deficiencies, options may include rehabilitation, slip-lining, or other innovative techniques. The plan will also detail the necessary permitting requirements. A preliminary drainage plan will be prepared to guide implementation.

6. Cost Opinions - The Wooten Company will prepare opinions of probable cost for the proposed improvements to assist the City in planning funding strategies and implementation timelines. For recommendations offering multiple alternatives, cost estimates will be provided for each option to aid in selecting the most appropriate long-term solution. This evaluation will also consider additional factors, including potential impacts on citizens, environmental effects, and property considerations, to ensure a balanced and informed decision-making process.

PROPOSED PERSONNEL



PROJECT MANAGEMENT

SCOPE

- ➔ Prepare clear defined scope
- ➔ Confirm project goals
- ➔ Identify roles and responsibilities

RISK

- ➔ Mitigate risk
- ➔ Implement QA/QC process
- ➔ Budget and schedule control

COMMUNICATION

- ➔ Identify stakeholders early
- ➔ Hold project workshops
- ➔ Provide summary monthly activity report

RESOURCE MANAGEMENT

- ➔ Internal project meetings
- ➔ Promote accountability
- ➔ On time and on task deliverables

SCHEDULE

- ➔ Detailed activity timeline
- ➔ Key milestones identified
- ➔ Integrated owner review
- ➔ Tracked regularly

BUDGET

- ➔ Updated estimates at 30%, 60%, and 90% milestones
- ➔ Cross check of estimating procedures within team partners
- ➔ Assist with project funding/financing

PROPOSED PERSONNEL



BRIAN JOHNSON, PE
Principal

Brian Johnson, PE, is the Director of Engineering Services for The Wooten Company. Since 1996 Brian has applied his engineering expertise to provide planning, analysis, and design of many infrastructure projects for local governments throughout North Carolina and South Carolina. He has worked on and managed numerous projects, large and small. Brian's project responsibilities have included preliminary studies, design, permitting, and construction administration, and the details included with each project phase. In addition to his departmental duties, he continues to work as a Senior Project Manager working on projects from inception to completion, working closely with clients to ensure they receive a quality project, on time and within budget. Maintaining client satisfaction and a quality project are his ultimate goals.

Education:

BS, Civil Engineering, NCSU
Masters of Civil Engineering, NCSU

Registrations:

Professional Engineer, NC, SC; LEED AP



JOHN GREY, PE
Client Liason

Joining The Wooten Company in 1998 to open the firm's Asheboro Branch Office, John Grey now has over 35 years of experience in the design and construction administration phases of water distribution projects, wastewater collection projects, water and wastewater treatment projects, stormwater, and site development projects. John provides oversight and management on a variety of disciplines for the Winston-Salem Regional Office of The Wooten Company ranging from project funding strategy, to design, bidding and all the way through construction contract services.

His team's focus is on municipal clients in the where environmental stewardship, cost-effective designs and economic development are constants in every infrastructure project they perform.

Education:

BS, Civil Engineering, NCSU

Registrations:

Professional Engineer, NC



HANS BENFORD, PE
Project Manager

Hans Benford joined The Wooten Company in 2024 bringing experience in many facets of municipal engineering and specific technical expertise in water resources engineering. His experience working with multiple stakeholders across a variety of different types of projects allow him to offer cost-effective design alternatives in challenging situations leading to more efficient project design. On a daily basis Hans deals with aspects of projects at every stage in the process from conceptual design all the way to final design and construction. Some of his additional responsibilities include reviewing and approving water, wastewater, and stormwater permits for compliance with North Carolina rules and regulations.

Education:

BS, Civil Engineering, Villanova University
Masters of Water Resources Engineering, Villanova University

Registrations:

Professional Engineer, NC, SC, VA, DE
NPDES Certified Industrial Stormwater Inspector



JACK BRARENS, EI
Assistant Project Engineer

Jack Brarens is an EIT with Wooten's Wilmington Civil Engineering Group. He was involved with the design of a 3 MGD lift station sewer system for the City of Apex, and currently serves as an assistant design engineer for a pump station replacement project for the City of Georgetown, SC. Jack also assists with sanitary sewer system modeling and pump station design tasks for various projects in the region. He previously served as GIS tech and engineer intern for CFPWA in Wilmington.

Education:

BS, Environmental Engineering, NCSU

Registrations:

Engineering Intern

PROPOSED PERSONNEL



MADISON FULBRIGHT
CAD Designer

Madison has five years of CAD Designer experience, as well as experience in Sketchup, Revit and DIALux. In these five years she has worked on projects that are centered in structural and architectural design, lighting and A/V design, and water/wastewater design. Prior to my CAD career, she worked with Alzheimer's and dementia patients, and combat veterans that suffer from PTSD. It was during this time that she discovered my passion for problem-solving and creating tangible solutions to improve the lives of others. Transitioning into the role of a CAD Designer enabled her to merge her love for creative problem-solving with my technical and design capabilities.

Education:

AAS, Architectural Technology, Cape Fear Community College
BA, Recreation Therapy, UNC- Wilmington



JOHN HARRIS
Senior CAD Designer

John Harris serves as CADD Manager for the Civil Department. John's role includes development of department standards, support of CADD personnel, as well as design production. His many years of experience include design and completion of projects featuring roadway design, sidewalk improvements, recreational facilities, water, wastewater, storm water, site development, and street revitalization projects. John works in the Civil/Site Practice.

Education:

AAS, Architectural Technology, Wake Technical Community College

EXPERIENCE OF THE FIRM

CITY OF LUMBERTON - TANGLEWOOD STORM DRAINAGE

As development and impervious areas have increased over the years around the City of Lumberton, the capacity of the existing storm drainage infrastructure, both pipe networks and canals, have begun to exhibit capacity issues. Within the Tanglewood area of the City (one of the oldest, more densely developed and containing critical infrastructure including Southeastern Regional Medical Center) the frequency and severity of these issues prompted City leaders to pursue improvements. The Wooten Company and its team worked to evaluate the capacity of the existing storm drainage infrastructure and verify performance of proposed improvements. Once the preliminary sizing/routing study was completed, The Wooten Company designed the upgrades to the drainage facilities serving the Tanglewood Area. These improvements included over 6,700 feet of 15" through 96" storm sewer replacing the existing pipe system. With the majority of this work being in the roadway through an established residential area, there is significant asphalt repair work and traffic control required. Additionally, this project was funded with EDA funding and coordination with the agency was necessary.

Contact: Rob Armstrong, Director of Public Works, 910.671.3800



CITY OF LUMBERTON - COMBINED SEWER SEPARATION

In 2009, The City of Lumberton required assistance to address storm sewer basins in the downtown area that were tied to the sanitary sewer system. The city was also suffering from failing lines throughout the downtown that were in need of rehabilitation. In order to update and rehabilitate the City's systems, The Wooten Company provided service to 7,000 linear feet of 8" and 12" gravity sewer line, manhole rehabilitation or replacement, service reconnection and pavement repairs. Additionally, 60 linear feet of 42" steel casing with 30" PVC storm drain was installed under the CSX Railroad, and approximately 270 linear feet of 10" sanitary sewer replacement was placed parallel to and within the right-of way of CSX Railroad, (this portion of the contract has been approved but not yet constructed). Clean Water State Revolving Funds were taken advantage of to assist with financing the \$2.5 million project.

Contact: Rob Armstrong, Director of Public Works, 910.671.3800



EXPERIENCE OF THE FIRM

CITY OF WASHINGTON - URBAN STORMWATER MANAGEMENT -

The City of Washington, NC undertook a project aimed at updating their stormwater management system and creating a wetlands/boardwalk area to function both as a filter for runoff and as a recreational asset for it's citizens. The Wooten Company served as the prime consultant and provided design, construction administration and construction observation for the project, which ACEC/NC awarded with their Grand Award for Water Resources. There were three phases of improvements within the work performed. The first included retrofitting the downtown stormwater system to capture a portion of the runoff before it entered the Pamlico River. The second realigned Stewart Parkway along the riverfront in order to reduce impervious cover, and the third involved the construction of the wetlands and boardwalk. A 36-inch through 60-inch diameter bypass piping system was designed to capture the first flush runoff from 73 acres of downtown area and deliver it to the constructed wetland to remove pollutants before discharging into the river. The 4 acre wetland was designed per NC Best Management Practices and the 1900 foot elevated boardwalk through the wetland served as an extension of the riverfront park, connecting residential areas to the NC Estuarium and the central business district in Washington. The project cost the city \$1.457 million but received funding from a Clean Water Management Trust Fund grant.

Contact: Frankie Buck Jr., Public Works Director, 252.975.9302



CITY OF OXFORD - GOSHEN STREET STORMWATER IMPROVEMENTS

Due to flooding of large neighborhood ditches and road intersections, The Wooten Company performed an evaluation of approximately 1,750 LF of 12-inch through 48-inch stormwater piping, structures, and drainage ditch systems that convey runoff from a 66 acre multi-basin drainage area in Oxford, NC. Evaluation included survey and inventory of storm drainage system, analysis of 2-year, 5-year, 10-year, and 25-year storms, and design of improvements based on 10-year and 25-year storms. Hydraulic modeling software was utilized for analysis of existing and proposed conditions. Existing topography and roadway elevations were also evaluated to determine their contribution to flooding issues. Improvements included upsizing existing mains, parallel of existing mains, increasing number of basins, and expansion, cleaning, and regular maintenance of ditches.

Contact: Amy Ratliff, City Engineer, 919.603.1113



EXPERIENCE OF THE FIRM

CITY OF LUMBERTON - LINKHAW ROAD RAILROAD CULVERT REPLACEMENT

The City of Lumberton has been experiencing flooding along Linkhaw road for years. The flooding affects businesses and residents in that area of town. The flooding is due to an undersized culvert under the railroad track that crossed Linkhaw Road. The City hired The Wooten Company to design a replacement culvert system to alleviate the flooding. Wooten had a hydraulic study completed to verify what size culvert would be needed and how it would benefit the different flood situations (10 year, 25 year and 100 year). Initially the effort was to not disturb the railroad tracks with the installation and a design was completed to install 3 54" casing pipes with 48" culver pipe installed inside the casing. While design and review of this was on going the industry at the end of the railroad spur shut down taking the spur out of service. The railroad suggested an open cut approach with box culverts to replace the multiple circular culverts. This is being designed and permitted with plans to construct in 2025. The project is partially funded by GoldenLeaf.



Contact: Rob Armstrong, Director of Public Works, 910.671.3800

Schedule: 2024-Ongoing

CITY OF GREENVILLE (HAZEN AND SAWYER) - 2019 STORMWATER MASTER PLAN

The purpose of the project was to map a complete storm drainage system conveying public water within the Green Mill Run watershed located in Greenville, NC. The Wooten Company was a sub-consultant to Hazen and Sawyer, who performed the overall Stormwater Master Plan. Initially the watershed had to be provide schematics of connectivity between storm water structures and open drainage systems within the map book. Field crews utilized the preliminary connectivity sketches to locate and collect pertinent information of individual structures. The process of field data collection for such a large project area was expedited through the usage GPS receivers operating on the NC Continuously Operating Reference Station (CORS) Network, allowing coordinates to be corrected on-the-fly. Areas of dense canopy and tall building structures had to be located conventionally with a total station. Based upon the attributes collected within the field, structures could be connected using GIS programming to allow for a network analysis and storm water modeling. Lastly, the large geodatabase of individual structures and its seamless connectivity within the Green Mill Run watershed were transferred to the modeling engineer where analyses were performed to determine areas of potential flooding.



Contact: Everette Knight, Hazen and Sawyer, 919.833.7152

4011 Westchase Boulevard, Suite 500, Raleigh, NC 27607

EXPERIENCE OF THE FIRM

The following projects were completed by Hans Benford at a previous firm

US 40/SR 72 INTERSECTION IMPROVEMENTS

Hans Benford, PE, served as the project drainage/SWM/ESC engineer for widening of SR 72 to improve intersection capacity and safety. He and the team designed roadway drainage and SWM approach to drain proposed roadway and tie into existing stormwater infrastructure to meet environmental regulations. SWM measures consisted of the design of modular sand filter inlets, retrofitting an existing stormwater pond, and bio-swale design. Additionally, the team designed open section ditch drainage, cross-pipes, and utilized existing infrastructure where possible to minimize costs and impacts to surrounding areas. The team also designed ESC with complex MOT scheme including time restrictions, lane restrictions, and complete culvert replacement. Project involved several civil engineering disciplines and required coordination with DNREC, DelDOT, and USACE.



DELAWARE AVENUE STREETScape IMPROVEMENT

With a previous firm, Hans Benford, PE, served as the lead H&H designer responsible for design and construction of urban stormwater flow-through the bioretention facility from concept to final design and construction. The goals of the project included pedestrian improvements, traffic calming measures, enhanced streetscape aesthetics and incorporation of green infrastructure stormwater management along Delaware Avenue in Wilmington's historic Forty Acres neighborhood. The team determined the best type of facility and location based on many factors such as available open space within the right-of-way, contributing drainage area, utility conflicts, parking needs, sidewalk accessibility, and community feedback. Design of the facility included delineating drainage areas, calculation of runoff, and sizing the facility appropriately to treat the maximum amount of runoff within the available facility footprint to alleviate stormwater related stress on the downstream combined sewer system.



RATE SCHEDULE

The hourly rates outlined below include fringe benefits, indirect costs, reimbursable expenses, and profit.

WAGE CATEGORY	HOURLY BILLING RATE
Engineer I	\$ 136
Engineer II	\$ 172
Engineer III	\$ 210
Engineer IV	\$ 252
Engineer V	\$ 298
Architect I	\$ 105
Architect II	\$ 135
Architect III	\$180
Designer I	\$ 99
Designer II	\$ 115
Designer III	\$ 139
Designer IV	\$ 179
Construction Admin I	\$ 136
Construction Admin II	\$ 197
Construction Admin III	\$ 258
Construction Observer / Resident Project Representative	\$ 128
Utility Coordinator II	\$ 148
Utility Coordinator III	\$ 228
Survey Technician I	\$ 69
Survey Technician II	\$ 81
Survey Technician III	\$ 95
Survey Technician IV	\$ 113
Survey Technician V	\$ 143
Surveyor I	\$ 110
Surveyor II	\$ 135
Surveyor III	\$ 169
Surveyor IV	\$ 224
GIS Analyst I	\$ 99
GIS Analyst II	\$ 116
GIS Analyst III	\$ 136
GIS Analyst IV	\$ 150
Funding Coordinator I	\$ 92
Funding Coordinator II	\$ 125
Funding Coordinator III	\$ 175
Project Assistant	\$ 95

Reimbursables: Mileage will be billed at the current IRS Standard Mileage Rate, Subcontracted Services and other expenses at cost plus 15%.

Standard Hourly Rates are subject to periodic review and adjustment.

Effective as of July 1, 2024.

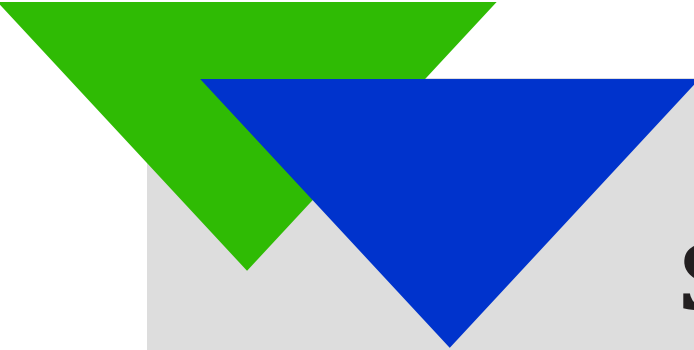
FAMILIARITY WITH LOCALITY

The Wooten Company has a long history of successful project partnerships with the City of Lumberton, whether architectural, engineering, or funding administration related. Many of the collaborations are as a result of our intimate knowledge of the City's public infrastructure needs. The list below is just a snapshot representation of our continuing work with the City of Lumberton.

- **TANGLEWOOD STORMWATER IMPROVEMENTS**
- **WTP FLOOD PROTECTION**
- **RAW WATER INTAKE IMPROVEMENTS**
- **SEWER AIA**
- **WATER AIA**
- **2018 PRIORITY POINTS SEWER REHABILITATION**
- **ROSEWOOD MOBILE HOME PARK SEWER**
- **NORTHWEST SEWER SYSTEM EVALUATION**
- **OLD WHITEVILLE ROAD SEWER IMPROVEMENTS**
- **PHASE III SEWER SYSTEM MAPPING**
- **REGIONAL WASTEWATER STUDY**
- **SANITARY SEWER COLLECTION SYSTEM**
- **TANGLEWOOD SEWER REHABILITATION**
- **TANGLEWOOD INFRASTRUCTURE MAPPING**
- **BILL SAPP CENTER RENOVATION**
- **CANCER INSTITUTE SEWER PUMP STATION IMPROVEMENTS DESIGN**
- **LUMBERTON CHRISTIAN CARE CENTER**
- **COMBINED SEWER SEPARATION**
- **DOWNTOWN AREA MAP**
- **EASTERN INTERCEPTOR FORCE MAIN**
- **KENNY BIGGS SEWER IMPROVEMENTS**
- **HAZARD MITIGATION PLAN UPDATE**
- **MANHOLE INSPECTION**
- **MILL STREET SEWER**

As a team devoted to supporting the health and welfare of communities throughout the Carolinas, we sincerely appreciate the opportunity to continue to develop our working relationship with the City of Lumberton. These referenced qualifications are the results of decades of hard work and commitment - a proud cornerstone of our practice - to the communities that we call home.

A Tradition of
DESIGNING THE FUTURE ►



STATEMENT OF QUALIFICATIONS

City of Lumberton

ENGINEERING SERVICES FOR
HYDRAULIC STUDY OF THE FIVE MILE
BRANCH CULVERT AT BAILEY ROAD

DECEMBER 2, 2024



PREPARED BY

CATLIN Engineers and Scientists
220 Old Dairy Road
Wilmington, NC 28405
910-452-5861

CATLIN
Engineers and Scientists

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December 2, 2024

Rob Armstrong
City of Lumberton
215 South Cedar St.
Lumberton, NC 28359

220 Old Dairy Road
Wilmington, NC 28405
910-452-5861
www.CatlinUSA.com

Re: Request for Qualifications- Engineering Services for Hydraulic Study of the Five Mile Branch Culvert at Bailey Road

Dear Mr. Armstrong:

We at CATLIN Engineers and Scientists (CATLIN) express our gratitude for the opportunity to present our qualifications regarding the City of Lumberton's Request for Qualifications (RFQ) for **Engineering Services for the Hydraulic Study of the Five Mile Branch Culvert at Bailey Road**. Our extensive expertise in hydraulic study projects and skilled design team, paired with our familiarity working with the City positions us ideally to deliver these services.

CATLIN Engineers and Scientists (CATLIN) has been a steadfast presence in North Carolina, specializing in Environmental, Civil, and Geotechnical Engineering solutions for nearly four decades. As a small business, our dedication to our clients is unwavering, forming the cornerstone of our company ethos. Combined with our multi-disciplinary nature, CATLIN is unique in our ability to see an integrated approach to each project.

Zachry Nichols Jr., PE, will lead our project management efforts. He brings substantial experience in managing civil and geotechnical engineering projects of varying sizes, from large, multi-million-dollar federal projects to private local clients. Under his leadership, our team will conduct a comprehensive hydraulic study of the impacted area and prepare a detailed report including findings, recommendations, and cost estimates.

Why CATLIN? Our Small Business approach is an asset to you- We offer:

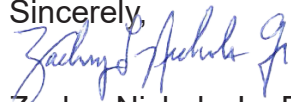
1. Streamlined Decision-Making: Unlike our larger counterparts with complex, multilayered approval processes, CATLIN offers swift and proactive decision-making to meet our client's needs. Being a small firm means inherently maintaining a shorter chain of command, ensuring timely responses from our management. For instance, if our client requests an adjustment mid-project, CATLIN's contract manager can quickly consult with our designers to authorize the change—often within minutes. We can assure you of the delivery of prompt and personalized service.

2. Mission-Focused Approach: As a small business, we pride ourselves on our ability to be highly agile with scheduling to maintain the project's timeline. Our team takes a hands-on, adaptable approach to project challenges, often reallocating resources dynamically to keep tasks on track. If a field technician isn't available for a critical task, an engineer will step in to complete the work—showing that every member of our team is ready to contribute, regardless of title. This flexibility ensures that we meet deadlines and exceed expectations without compromise.

3. Competitive Pricing and Quality Commitment: At CATLIN, our streamlined operations allow us to offer highly competitive pricing without compromising on the quality of our services. Unlike larger companies with rigid pricing structures, our small business model enables us to provide flexible, tailored pricing solutions while still delivering our best product to the client—something that is vital for the livelihood of a small business. For us, providing high-quality services isn't just a commitment; it's a lifeline. Our reputation is our most valuable asset, and maintaining it through exceptional work is essential to our continued success and growth.

Thank you for considering us for this opportunity. By signing this Letter of Interest, CATLIN affirms that if selected, we commit to performing all work within the contract period. Should you have any questions or require further information, please contact us at 910-452-5861.

Sincerely,



Zachry Nichols Jr., PE
Contract Manager
Zack.Nichols@CatlinUSA.com

1) Technical Approach/Understanding of the Program

A. FIRM EXPERIENCE

CATLIN has provided **Environmental, Civil, and Geotechnical** Engineering and Consulting services across North Carolina for nearly four decades. Since our inception in 1985, we've consistently delivered professional engineering, planning, and management services to a **diverse clientele**, including Federal, State, and Local governments, industrial clients, and private companies. Our distinguished team comprises seasoned registered professionals proficient in various disciplines, including environmental, civil, and geotechnical engineering, hydrogeology, geology, and environmental science. In addition to our consulting services, CATLIN offers geotechnical and environmental drilling utilizing our fleet of in-house drill rigs and licensed operators, as well as soil property testing services facilitated through our NCDOT, USACE, and AASHTO-accredited geotechnical soil laboratory. CATLIN is solely owned by Jason R. Catlin, PE, with headquarters in Wilmington, NC, and offices in Raleigh, NC and Washington, NC. **Operating as a Small Business Enterprise under NAICS Code 541330 Engineering Services, CATLIN is licensed to practice engineering (License No. C-0585), geology (License No. C-118), and general contracting (License No. 32900) in North Carolina.** CATLIN's growth trajectory can be attributed to our exceptional service quality, vast knowledge base, professional reputation, and a customer service approach that consistently exceeds our clients' expectations.



Founder Rick Catlin utilizing a hand auger to sample soils in 1990s.

Our team has the capability, knowledge, and expertise to successfully execute both simple and complex engineering projects. We have developed an excellent reputation as a responsive, competent, and versatile engineering firm, and we take pride in our leadership role with respect to regulatory knowledge and our considerable experience in successfully completing thousands of projects throughout the Southeast. Project types may vary but all require unique solutions to sometimes complex problems. CATLIN specializes in providing comprehensive planning, design, and management services for stormwater management, flood studies, and hydrologic and hydraulic analysis. Through meticulous site planning and assessments, we ensure that our projects meet functional, aesthetic, and environmental goals. Our expertise includes conducting detailed studies and reports, GIS research, and hydrologic and hydraulic analyses to predict stormwater flow and mitigate flood risks. We prepare thorough stormwater management plans, including the design of Stormwater Control Measures (SCMs), ensuring that construction documents and specifications are precise and effective. Our team also handles the regulatory permitting process, securing necessary approvals from entities such as the NCDEQ, NCDOT, and USACE.



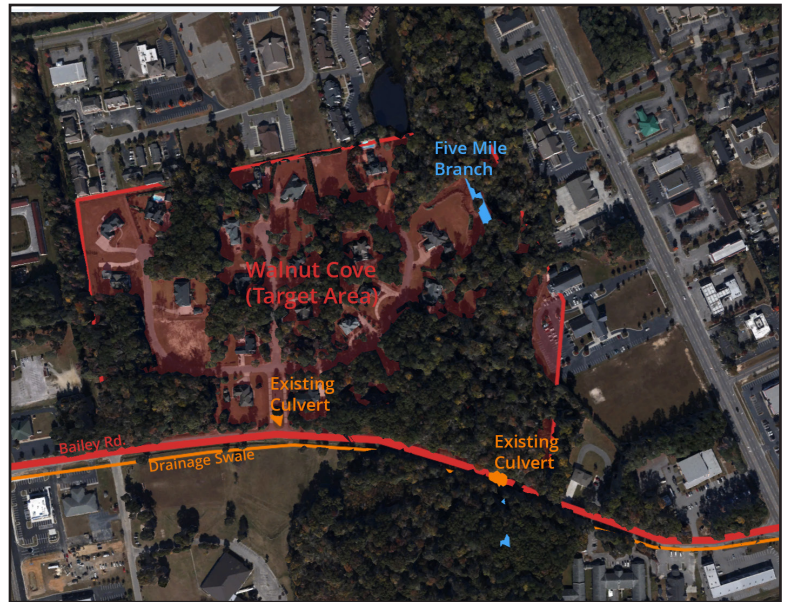
NCDEQ Familiarity

In the realm of construction, we emphasize detailed earthwork and grading plans that define post-construction surface characteristics, collaborating closely with geotechnical engineers to understand subsurface conditions. Our erosion and sedimentation control designs use advanced 3D modeling to ensure proper drainage and minimize erosion during construction. We provide construction phase services, including site observation, conflict resolution, and final certifications, to ensure projects adhere to approved plans and specifications.

Additionally, our utility design services encompass hydraulic modeling, fire flow calculations, and water and sewer infrastructure planning. By integrating these services, we deliver robust solutions that address stormwater management and hydrologic challenges, ensuring sustainable and resilient project outcomes.

B. UNDERSTANDING AND APPROACH

For this project, CATLIN will investigate and determine which storm drain improvements should be implemented to best alleviate flooding in the Walnut Cove neighborhood and Bailey Road where Five Mile Branch intersects the road. Our team will conduct a comprehensive surface water hydraulic study of the basin impacting the area and suggest changes to improve hydraulic conditions to reduce flooding impacts on access and travel during extreme rain events and major Lumber River flooding. Planned upstream and downstream improvements for the I-95 and railroad CSX culvert re-sizing projects will be taken into account as we evaluate basin surface water runoff and outfall performance for storm events at different intensities (10-year, 20-year, 50-year, and 100+- year events). All findings, recommendations, and preliminary cost estimates for the Walnut Cove and Bailey Road Culvert will be prepared in an Engineering Report for the City of Lumberton.



Site Map

Upon the notice to proceed, our team will walk the site with the City to observe the topography, photograph the stormwater structures, and observe the areas that experience the most significant backups. QL1 LiDAR data, NC Hurricane Florence 7 2020, published 3/18/2022, will be requested from the NC Emergency Management Spatial Data Download website, and will be used to delineate the drainage areas (subbasins) within the overall drainage area. Existing models will also be requested from the City to be utilized as a baseline for drainage area determination.



Site Flooding During Hurricane Florence

CATLIN's site improvement recommendations will be designed to meet the standards of the City of Lumberton and all applicable regulatory authorities. We would begin the project by coordinating with the City of Lumberton and North Carolina Department of Transportation (DOT) which owns the right-of-way along Bailey Road. If an encroachment agreement with DOT is needed for the proposed design, additional time may be required to account for agency review and approval.



Existing Drainage System (Walnut Cove)

CATLIN's survey consultant SAM, will perform a topographic survey of Bailey Road, spanning from the Walnut Cove subdivision to where the Bailey Road ditches discharge into Five Mile Branch. SAM will conduct a field survey consisting of survey-grade field data for stormwater structures that LiDAR data is unable to observe (i.e., recent changes in the landscape, the conveyance of stormwater via underground pipes, underground observations, etc.). The remainder of the study area will utilize a local-base RTK GPS approach and conventional land surveying methods to produce greater accuracy in elevation observations. Observations will be certified within the 95th percentile of accuracy.

Both the LiDAR data and the field survey data will then be utilized to define the limits of the Bailey Road ditch system drainage basin, further contributing to our hydraulic study.

To quantify the stormwater deficiencies along the target area, CATLIN will use Hydraflow Hydrographs Extension of Autodesk Civil 3D for the hydrologic analysis of the existing drainage basin conditions. The drainage areas delineated from the LiDAR and survey data collected will be used to build the model. Additionally, field data collected for the ponds, ditches, pipes and other stormwater structures will be entered in the model for a comprehensive hydraulic analysis of the stormwater drainage system functionality. Intensities for the 10-, 20-, 50-, and 100-year frequency storms will be estimated using NOAA Atlas 14-point precipitation tool.

The model will be used to simulate proposed improvements such as redirecting flows, widening ditches, or upsizing/adding pipes. Proposed improvements will be prioritized by those that eliminate or provide the most flood mitigation.

With the findings from the study, CATLIN will compile a comprehensive Engineering Report detailing the objective of the study, methods and means used for analysis, a summary of the site background and existing conditions, a site vicinity map, and recommendations for drainage improvement in the target areas including the supporting data. Cost opinions will be considered throughout the study and also noted in the final report for the City's reference.



Existing Drainage System (Bailey Road)

2) Work Management Plan/Experience of Proposed Personnel

A. MANAGEMENT PLAN AND STAFF

CATLIN is dedicated to delivering top-tier services, ensuring precise execution and adherence to budgetary constraints. Our team's experience with similar municipal projects, detailed throughout this proposal, demonstrates our capability. In addition to our experience working with Lumberton on the REMPAC Foam project, CATLIN has a strong presence in North Carolina and is familiar with the region's physical conditions and regulations. For this contract, our **Contract Manager, Zack Nichols, PE**, will be the primary point of contact for the City, overseeing the entirety of the project and coordinating regularly with the City of Lumberton staff. Mr. Nichols has managed hundreds of civil and geotechnical projects over the past 15 years, and since joining CATLIN in 2023, he has seamlessly taken over all operations of our Civil department, managing our team of civil designers with a plethora of experience in flood studies and stormwater controls systems.

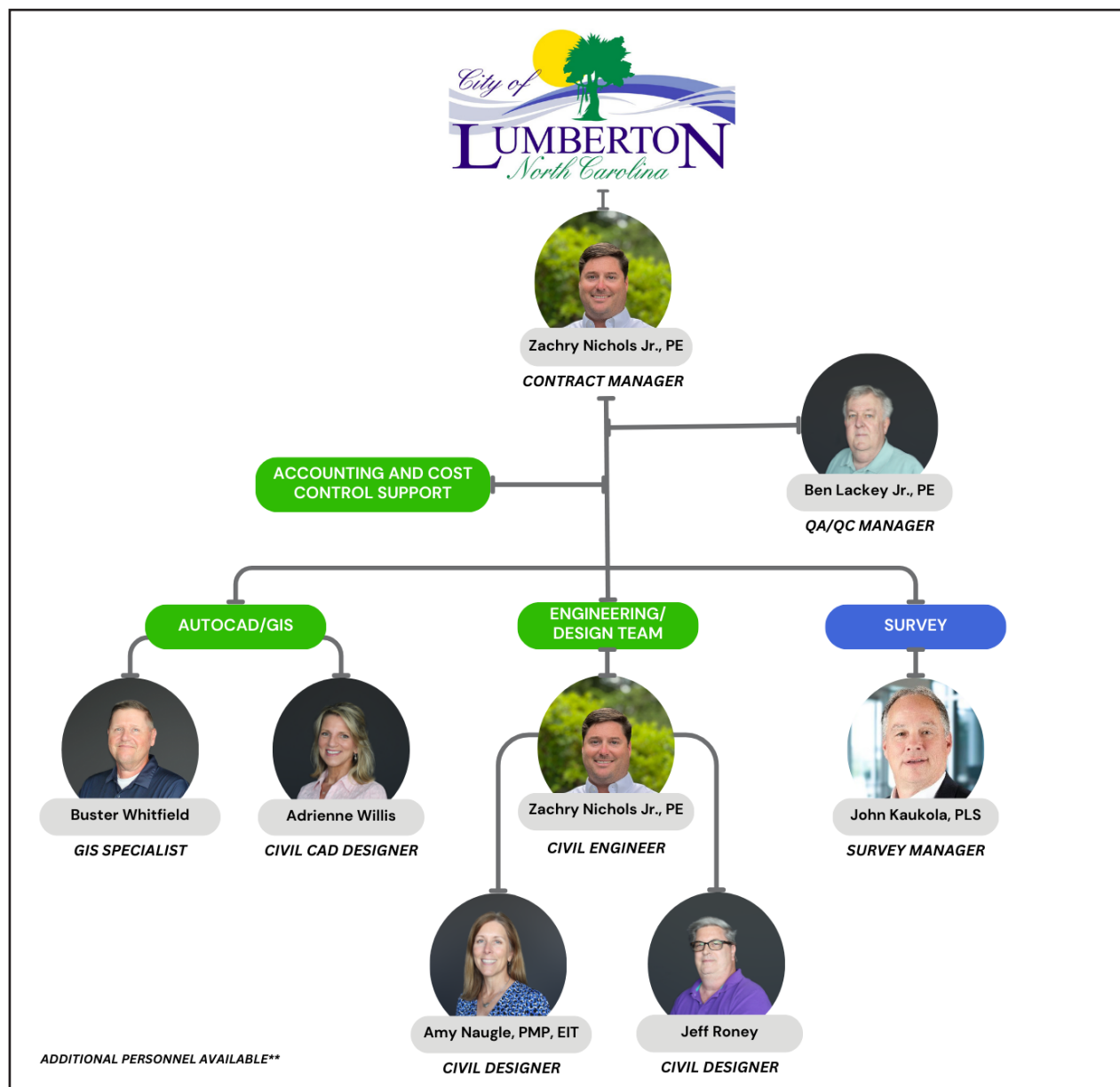
Jeff Roney, CATLIN's lead civil designer, brings 40 years of experience in completing designs on a myriad of project types. Notably, Mr. Roney served as the lead designer for the flood mitigation design at the **REMPAC Foam LLC industrial site in Lumberton, NC**. This project aimed to protect the facility from extreme storm events, including the 10-year through 1000-year storms, as modeled using rainfall data from Hurricane Matthew and Hurricane Florence.

Mr. Roney led the design effort from start to finish, crafting a comprehensive flood mitigation plan based on CATLIN's initial hydraulic study. Using LIDAR topographic data and hydrologic modeling, the study confirmed that an earthen berm, supplemented by additional flood control measures, would effectively safeguard the facility. Jeff's design incorporated features such as a retention pond, stormwater pump, bypass ditch, and flood gates, along with modifications to existing stormwater infrastructure. This is just one of the many examples of similar projects that Mr. Roney has designed over his tenure.

CATLIN has comprised a strong team to carry out the entirety of this project, from data acquisition through surveying and GIS mapping, to analysis and design of flood-reducing strategies, our team holds the knowledge, expertise, and certifications necessary to bring the project to fruition.

CATLIN's project team structure is detailed in the accompanying organizational chart with key professional team members noted. All key project staff are based in our Wilmington office, just an hour and a half drive from Lumberton, with additional personnel available to support this effort if needed. Additionally, we have teamed with SAM's Lumberton office to provide topographic survey. SAM has provided these services for numerous projects in Lumberton and is prepared to coordinate with our team and the City to complete all services.

CATLIN's team has ample capacity to address the City of Lumberton's needs for this hydraulic study project. Our team's expertise, commitment to client satisfaction, paired with our proximity and experience working with Lumberton can guarantee a well-rounded and equipped team to successfully complete this project. As highlighted throughout this proposal, our team members are exceptionally qualified to execute this hydraulic study project for the City of Lumberton. However, beyond mere expertise, the availability and capacity to fulfill the requested services are paramount. As a small, local business, CATLIN adopts a unique approach to each project, prioritizing relationship-building and flexibility. We prioritize personalized attention to every client, ensuring the delivery of top-tier solutions that align with their needs, schedule, and budget.



Organizational Chart

Our small business model allows us to be agile, enabling us to swiftly allocate resources as required and tailor team schedules to match the evolving demands of the project. We are committed to employing every resource necessary to surpass our clients' expectations. This steadfast dedication to our clientele, exemplified by our proven history showcased in past project references, firmly establishes CATLIN as the unparalleled choice for this project.

Below, we have provided details of our supporting team structure and qualifications, demonstrating the culmination of our team members capabilities to complete this drainage project for the City of Lumberton efficiently.

B. RESUMES

1. Zachry Nichols Jr., PE

CATLIN–Wilmington, NC

Total Years Experience- 17.5

BS/ Civil Engineering

Contract Manager/Civil Engineer

Years with CATLIN- 1.5

Professional Engineer- **NC (No. 045493)**

Mr. Nichols has 17 years of project and contract management experience in civil engineering. As the civil project manager at the United States Army Corps of Engineers (USACE), he led teams in executing federal design and construction projects across the eastern United States and Europe. He managed teams of various sizes, ensuring projects stayed within scope, schedule, and budget. His tenure in federal civilian service, including leading Project Delivery Teams (PDT) for \$300M+ projects for USACE, has earned him expertise in the Project Management Delivery Process (PMDP). Transitioning to a privately-owned engineering and construction firm in 2021, Mr. Nichols managed Federal Waters and Facilities projects in the Southeast, enhancing his project management skills in the consulting industry. Since joining CATLIN in 2023, Mr. Nichols has quickly integrated into the firm's civil unit, managing existing contracts with state, local, and private clients, and overseeing a range of new civil works projects. Mr. Nichols' nearly two decades of experience in managing large-scale projects make him exceptionally qualified to lead this drainage project for the City. His proven track record in delivering complex projects on time and within budget, combined with his expertise in civil works projects positions him as the premier choice to manage this project for the City of Lumberton.

2. Ben Lackey Jr., PE

CATLIN–Wilmington, NC

Total Years Experience- 45

BS/ Civil Engineering

QA/QC Manager

Years with CATLIN- 8

Professional Engineer- **NC (No. 011292)**

Ben Lackey joined CATLIN after retiring from the USACE Wilmington District Office, bringing 37 years of experience as a geotechnical engineer. During his tenure with the USACE, he reviewed and managed civil design projects, ensuring adherence to the highest standards of quality and compliance. His expertise spans hydraulic studies and their implications for civil works, military projects, and private endeavors. With extensive experience in quality control for multi-disciplinary engineering designs, Mr. Lackey brings impeccable attention to detail required for quality management.

Mr. Lackey's technical training includes Advanced Geotechnical Site Characterization, Stormwater Innovations, Erosion and Sediment Management, and Shear Strength of Soils, equipping him with a deep understanding of hydraulic and sediment behavior in complex systems. He has conducted design reviews, value engineering studies, and dredged material management plan assessments for major port expansions and harbor deepening projects, requiring in-depth evaluation of hydraulic impacts such as erosion control, sediment transport, and material placement strategies.

His expertise also encompasses subsurface investigation layouts, soil test analysis, and the design of structures including roadways, bridges, embankments, retaining walls, pavements, and excavation systems. At CATLIN, Mr. Lackey oversees subsurface investigations, provides foundation recommendations, and ensures all civil design projects undergo thorough QC reviews. His rigorous approach to QA/QC ensures compliance with established policies, procedures, and technical standards, maintaining excellence across all phases of project execution.

3. Jeff Roney**CATLIN–Wilmington, NC**

Total Years Experience- 40

AAS/ Drafting and Design &

Civil Engineering Technology

Senior Civil Designer

Years with CATLIN- 10

Jeff Roney boasts an impressive 40 years of experience as a civil designer, with a robust background in both mechanical and civil engineering projects. His extensive expertise encompasses designing and performing hydraulic and hydrology studies, preparing detailed technical reports, and coordinating and permitting stormwater and erosion control measures for various commercial and residential projects.

Mr. Roney has demonstrated his proficiency in designing site, utility, stormwater, grading, erosion control, and wetland plans using AutoCAD and Civil 3D. He has successfully prepared and submitted permit applications to city, state, and federal agencies, and has collaborated closely with city and county planners on all aspects of project development. His experience includes preparing base maps for orthographic images and survey data, as well as calculating sewer inverts, slopes, and waterline placements in accordance with accepted standards.

Proficient in various computer programs, Mr. Roney's technical skills include TR55, HEC-2, HEC-RAS, Hydraflow Hydrograph and Storm Sewer, WaterCAD - Pipe Network Analysis Program, AutoCAD, and Civil 3D for design and plan preparation. As CATLIN's Lead Civil Designer, he is a trusted team member who regularly manages multiple and varied civil engineering design projects. He assists clients with preliminary site plans, surveys, and inventories, and is readily available as a resource, particularly for municipalities. His ability to mobilize quickly for site reconnaissance ensures timely and efficient project execution.

For this project, Mr. Roney will serve as the lead designer under the management of Mr. Nichols. Leveraging his 40 years of experience, combined with his expertise in hydrologic and hydraulic analysis, floodplain mapping, and stakeholder engagement, establishes him as the ideal candidate to serve the City on this project. His comprehensive understanding of FEMA regulations and guidelines ensures that the drainage project will not only be thorough and accurate but also compliant with all necessary standards and funding requirements.

4. Amy Naugle, PMP, EIT**CATLIN–Wilmington, NC**

Total Years Experience- 20.5

BS/ Civil Engineering

QA/QC Manager

Years with CATLIN- 1.5

Professional Engineer- **MD (Pending License
Reinstatement)**

Project Management Professional

Amy Naugle brings 20 years of engineering experience in various civil works projects. While practicing in Maryland, she specialized in utility design and stormwater management across multiple counties. As a Project Engineer for a land development firm in Pennsylvania, Ms. Naugle conducted site reconnaissance for flood study models, analyzed existing conditions, and delineated pre- and post-flood areas. She is proficient in several computer programs, including TR55, HEC-2, HEC-RAS, Hydraflow Hydrograph, and Storm Sewer. Her expertise includes providing support and quality control for all types of plan sets (water, sewer, and stormwater). She regularly reviews preliminary reports and offers valuable insights to ensure the best possible outcomes for each client.

Since joining CATLIN in 2023, Ms. Naugle has collaborated closely with Mr. Roney and Mr. Nichols on various civil works projects. Ms. Naugle's dedication to ensuring the best possible outcomes for each client, coupled with her meticulous attention to detail and thorough understanding of flood control principles, underscores the importance of her role in guiding this drainage project towards success. Her contribution will enhance the team's ability to deliver comprehensive drainage improvement strategies.

5. Adrienne Willis**CATLIN–Wilmington, NC**

Total Years Experience- 25

BFA / Environmental & Architectural
Design Technology**Civil CAD Designer**

Years with CATLIN- 8

Adrienne Willis boasts an impressive 25 years of experience as a technical designer, site planner, and 3D visualization artist. Proficient in a multitude of design software applications, including AutoCAD Architecture, Civil3D, Map3D, InfraWorks, MicroStation, Chief Architect, Sketchup, and ArcGIS, she brings a wealth of technical expertise to the table. Her role extends beyond mere design as she seamlessly integrates GIS data into civil design projects and compiles essential information into formal documents and technical reports. Utilizing SpecsIntact software, Ms. Willis coordinates, edits, and reconciles facility construction specifications and submittals, ensuring meticulous attention to detail. Ms. Willis's proficiency in advanced modeling software allows her to create captivating 3D conceptual models, video flythroughs, animations, and renderings of civil projects. These visual representations are invaluable for presentation meetings with stakeholders and clients, facilitating clear communication and informed decision-making. In collaboration with Mr. Roney, Ms. Willis provides crucial technical assistance in creating detailed and accurate drawings, plans, and visual representations of project components. Her expertise in Adobe Photoshop, Premiere Pro, and web design further enhances her ability to deliver high-quality outputs tailored to meet project requirements.

Ms. Willis's multifaceted skill set, and extensive experience make her an indispensable asset to the project team. Her ability to translate complex technical information into visually engaging presentations will play a vital role in conveying project concepts effectively to stakeholders and ensuring project success.

6. T. Buster Whitfield**CATLIN–Wilmington, NC**

Total Years Experience- 27

BA / Geography

GIS Specialist

Years with CATLIN- 22

Thomas 'Buster' Whitfield's expertise lies in ArcGIS and database application development, operation, and maintenance, making him an invaluable asset to civil works projects. He adeptly utilizes ESRI ArcView, ArcMap, and ArcIMS to craft web-based Geographic Information Systems (GIS) applications.

In his role as GIS lead on CATLIN's Underground Storage Tank Management Data Management Program at Marine Corps Air Station Cherry Point, Mr. Whitfield manages and integrates quarterly and semi-annual laboratory analytical data and groundwater level gauging data from contractors into the GIS and database. He meticulously prepares semi-annual Monitoring Reports and provides crucial assistance in developing Management Recommendations Reports and Sampling Plans for upcoming sampling events. Additionally, he played a pivotal role in shaping the Strategy Plan for the UST Management Plan at MCB Camp Lejeune, aimed at streamlining site closure processes for enhanced efficiency and cost-effectiveness.

Furthermore, Mr. Whitfield extends his support to the CADD department by assisting with drafting and drawing preparation for reporting purposes. His proficiency in MicroStation enables him to create detailed 3-D models of groundwater contours and contamination isoconcentrations, further enhancing the visualization of complex data sets.

In the context of civil works projects, Mr. Whitfield will collaborate closely with all project team members to streamline data collection and visualization efforts for the analysis of flood events. His expertise will play a pivotal role in facilitating the design team's endeavors, ensuring comprehensive and accurate insights into flood dynamics and mitigation strategies.

7. John Kaukola, PLS

SAM–Lumberton, NC

Total Years Experience- 36

Civil Engineering Courses

Survey Manager

Years with SAM- 3

Professional Land Surveyor- **NC (L-3999)**

FAA Part 107 Drone License

John Kaukola serves as a Survey Department Manager for Surveying And Mapping, LLC (SAM). In this capacity he has oversight of all surveying operations for SAM projects and contracts in North and South Carolina.

Mr. Kaukola's career spans 33 years of Surveyor experience with the North Carolina Department of Transportation; 31 years with the Location and Surveys Unit and 2 years with the Construction Unit. During his tenure with NCDOT, he was Division 6 Locating Engineer for over 16 years, Division 6 Assistant Locating Engineer for 3 years, Transportation Technician VI-GPS Project Coordinator, Crew Chief and CADD Operator. Mr. Kaukola managed all surveys in Division 6, including supervising surveys to support Photogrammetry, Hydraulics, Geotech, and any other surveys requested by NCDOT.

Mr. Kaukola's experience includes managing Division 6 Location & Surveys' daily operations of office and field personnel; managing all projects, personnel matters, performance management, payroll and equipment; supervising engineers and technicians performing route location surveys, r/w monumentation, property surveys, and control surveys as these assignments arrive. Additional responsibilities included the hiring and management of private engineering firms for selected projects negotiating project man-hours. Mr. Kaukola was also responsible for all project data transmitted to ensure the accuracy of the project assignment, directing all field office activities to complete assignments in a timely manner, manage group safety programs to make it a top priority while following departmental policies.

3) Experience of the Firm

A. PAST PROJECT EXPERIENCE

1. USACE Princeville Flood Risk Management Investigation and Design Analysis

Princeville, NC

Client Entity Name: USACE-Wilmington District (SAW)

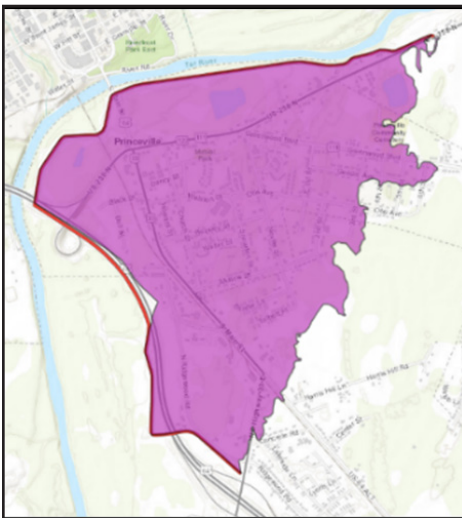
Client Principal Contact: Tamara Murphy, Lead AE Coordinator, Engineering Branch

Client Email: Tamara.C.Murphy@USACE.Army.Mil

Client Phone: 910.251.4429

CATLIN provided AE services to the USACE Wilmington District for the Princeville Flood Risk Management (FRM) Investigation and Design Analysis project associated with the proposed levee expansion in Princeville, NC. A combined team of 6 local companies collaborated on hydrologic and hydraulic analysis, geotechnical investigation, wetland delineation, and surveying support.

During initial analysis, model results showed that effects on maximum water surface elevations by the Authorized Project span beyond the area immediately upstream and downstream of Princeville. To entirely quantify the impacts of the Project and provide a more comprehensive analysis, the model was extended both upstream and downstream. The hydrologic and hydraulic analysis evaluated the potential for increased flood elevations along the Tar River resulting from the decrease in available floodplain storage volume upland of the levee improvements in the Recommended Plan. CATLIN developed an inventory of FEMA Buyout properties. We coordinated with utility companies (including overhead and buried) to obtain pertinent data and as-built information. We field located the utilities and prepared AutoCAD drawings showing utilities.



Princeville Drainage Area

In order to mitigate flooding impacts due to the implementation of the Authorized Project, potential Courses of Action (CoAs) that have the potential to reduce and/or eliminate flooding impacts were developed. Three CoAs were selected for study, which included realignment of portions of the existing levee, bridge expansions, roadway improvements, and culvert installation. Modeling of select CoAs was completed using the HEC-RAS model to quantify the potential effectiveness of each CoA at further mitigating flood risk. New model geometries and terrains were created in order to model each CoA.

CATLIN coordinated with a subcontractor to complete Closed Circuit Television (CCTV) inspections of existing culverts that pass through the levee, and prepared a report of the pipe video inspections, completed a condition assessment for each culvert, and evaluated the requirements to modify each culvert for incorporation into the

Princeville FRM project. CATLIN generated AutoCAD files and drawings showing the culverts including size and inverts based on survey data collected.

Ms. Shoemaker, USACE Wilmington's Contracting Officer provided a Contractor Performance Assessment Rating Systems (CPARS) rating, a commonly used rating system for federal projects, following project completion. Under the four evaluation areas- 'Quality', 'Schedule', 'Cost Control', and 'Management'; CATLIN received an 'Exceptional' rating on Quality, Schedule, and Management, and was rated 'Very Good' for Cost Control. This score exemplifies CATLIN's track-record of successfully executing projects, consistently delivering a high level of client satisfaction.

2. MICC- Fort Liberty Design Repair Stormwater Beaver Creek Drainage

Fort Liberty (Formerly Fort Bragg), NC

Client Entity Name: Military and Installation Contracting Command (MICC) Center– Fort Liberty

Client Principal Contact: Alfred R. Sebile, Contact Specialist

Client Email: alfred.r.sebile.civ@mail.mil

Client Phone: 910.643.3702

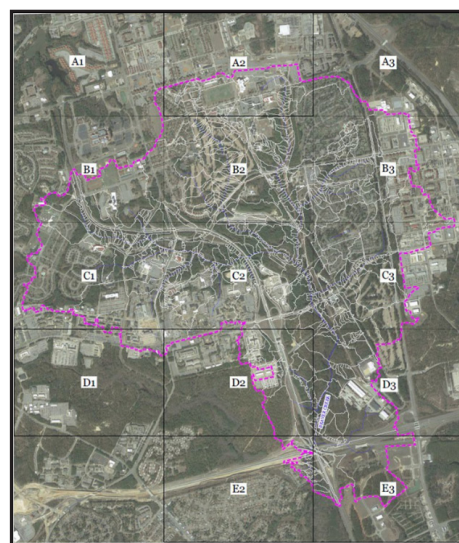
CATLIN was contracted by Fort Liberty Army Base, North Carolina to assess the Beaver Creek Watershed. The watershed is over 3,722 acres (5.82 square miles) in drainage area and includes 63,000 feet of modeled stream channel which ultimately drains to McFayden Lake.

Once CATLIN characterized the condition of the watershed, further assessment for the locations for potential stormwater BMPs was undertaken. This

was completed through a series of detailed evaluations which assessed the need and potential across the watershed, specifically focusing on reducing flood risk.

The watershed was evaluated based on the EPA Stormwater Management Model (SWMM) developed in 2019 and field investigations performed by CATLIN to characterize existing conditions and determine locations for potential stormwater detention and infiltration Best Management Practices (BMPs). The assessments of existing conditions and potential for stormwater BMP locations were then collectively reviewed and ranked to arrive at the ultimate objective of identifying stormwater BMPs that will have the most effect on areas with the greatest need for flooding relief within the watershed. Reducing flooding at the Reilly Road and Gruber Road crossings is of the utmost importance because these roads greatly affect traffic circulation when they are flooded.

A Watershed Study Report was prepared and submitted to Fort Liberty. Post-modeling field visits were conducted to verify proposed BMP dimensions, and conceptual drawings were prepared for approximately 20 BMPs. These drawings will assist the client in their efforts moving forward to implement the suggested measures.



Beaver Creek Watershed Grid Map

The SWMM model results and correlating plans were included in a formal report, which summarized the pre and post improvement conditions for the Beaver Creek Watershed demonstrating the impact the measures will have on potential future flooding events.

3. MCAS Cherry Point- Stormwater Drainage Network Assessment and Design

Marine Corps Air Station (MCAS) Cherry Point, NC

Client Entity Name: Whiting-Turner Contracting Company

Client Principal Contact: Bristol Reynolds, Project Manager

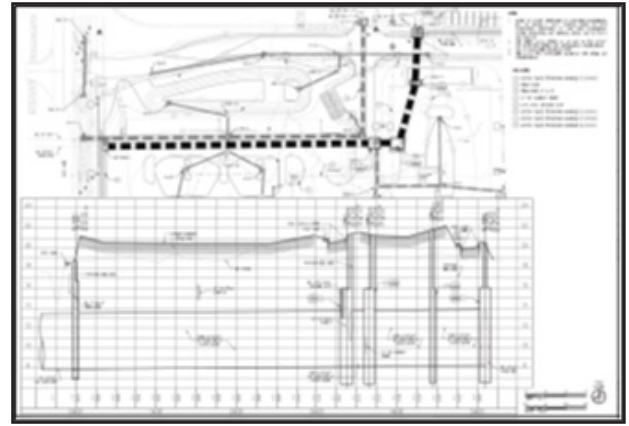
Client Email: Bristol.Reynolds@whiting-turner.com

Client Phone: 410.365.8580

Hurricane Florence made landfall near Wrightsville Beach, NC in September 2018 as a Category 1 storm and produced extensive wind damage, storm surge of 9-13 feet and rainfall of 20-30 inches. Massive flooding, downed trees and power outages occurred at MCB Camp Lejeune, MCAS Cherry Point and outlying areas. The Design-Build construction team at MCAS Cherry

Point was led by Whiting Turner and CATLIN provided Civil Engineering, Geotechnical Engineering and Permitting services.

CATLIN prepared a condition assessment report for an existing storm pipe system to determine if replacement was recommended. The system consists of 54" circular concrete pipe and 95" x 67" corrugated metal arch pipe trunk lines. CATLIN visually assessed the storm drain lines and inlets where photographs and camera footage was provided. Survey and available drawings were reviewed and estimated the age of the concrete pipe between 40 and 80 years old, while the corrugated metal arch pipe approximately 30 years old. Both pipe and inlets were reviewed.



*Construction of the Storm Drain Network
completed in early 2023*

Based on the age and visible condition of the pipes, both were recommended for replacement due to pipe separations, corrosion, and visible conflicts. NOTE:

Department of Defense and Department of the Navy principles for high performance and sustainable building project requirements were included in the design and construction of the project. The site sustainability design was in accordance with UFC 3-210-10, Low Impact Development (LID), which provides the criteria necessary to comply with the stormwater requirements of Section 438 of the Energy Independence and Security Act (EISA) of 2007. The design evaluated all technically feasible solutions to enhance stormwater runoff and incorporate LID principles to the maximum extent possible. LID principles implemented included relative flat vegetated buffers to maximize sheet flow, and the use of open channel systems and infiltration. Identified constraints to implementing LID principles included high groundwater elevation in the central and eastern portions of the site.

CATLIN prepared the construction plans for the replacement of the existing storm pipes. Although a hydrologic/hydraulic analysis was recommended, the Government elected to do a straight replacement of the existing pipes. The replacement pipe went back in exactly the same location as the existing pipe, with same inverts and structure configurations. CATLIN prepared full construction plans for the replacement storm pipe and coordinated with the structural designer for details. Deliverables consisted of a letter report, engineering drawings and annotated survey, pipe segment photographs, and manhole and inlet photographs.

4. Bladen County- White Oak Levee Project

Kelly, NC

Client Entity Name: County of Bladen

Client Principal Contact: Charles Peterson,
County Manager

Client Email: cpeterson@bladencc.edu

Client Phone: 910.862.6701

The White Oak Dike was removed from the Rehabilitation & Inspection Program (RIP) PL 84-99 in 2001 due to significant deficiencies including man-made breaches, vegetation, and erosion. The County desired to have the White Oak Dike accepted back into the PL 84-99 by the USACE Wilmington District. CATLIN provided AE services to the County of Bladen to prepare engineering plans and details for repairs to the White Oak Dike in Bladen and Pender Counties.

CATLIN performed an aerial survey, collected field data through geotechnical investigations, prepared engineering plans for repairs and submitted a Letter of Intent (LOI) to the USACE.

CATLIN also coordinated a subcontractor to inspect all storm sewers including field measurements and CCTV, with findings compiled in a comprehensive report.

The work focused on the unacceptable and minimally acceptable culverts/discharge pipes, unauthorized encroachments, and erosion/bank caving locations. A local surveyor provided a topographic survey of the levee which allowed CATLIN to provide a 50-scale orthophotography and 1-ft contour topographic survey was provided for use in the design repairs. CATLIN's assembled team met all project delivery objectives on time and within budget.

4) Familiarity with Locality

A. LUMBERTON/MUNICIPALITY EXPERIENCE

With nearly 40 years of expertise across North Carolina, including extensive work in Lumberton and the surrounding areas, CATLIN offers a deep understanding of local regulations, permitting requirements, hydrogeological conditions, and construction materials and practices. Our team has cultivated longstanding relationships with local regulatory agencies and utility providers, ensuring seamless project execution. Over the years,

we have delivered successful projects for municipalities such as Wilmington, Oak Island, Pinehurst, Lumberton, Bolivia, and Southport, highlighting our capacity to navigate municipal-specific challenges.

CATLIN has completed **89 projects in Lumberton**, with over half accomplished in the last decade. Notably our work on the **REMPAC Foam LLC Site**, conducting flood mitigation for the City of Lumberton was completed between 2019 and 2021.



Project Highlights: REM PAC Foam LLC, Hydraulic Study and Flood Mitigation Control Design



REMPAC Foam Site Flooding

The hydraulic study assessed the adequacy of existing and proposed flood mitigation measures, including an earthen berm, bypass ditch, stormwater retention pond, flood gates, and a sheet pile retaining wall. Using LIDAR data, topographic and wetlands surveys, and rainfall data from NOAA and historical records, CATLIN developed hydrologic and hydraulic models to simulate storm events from 10-year to the 1,000-year flood levels. The analysis incorporated field observations and calibrated storm models based on real flood events.

Key aspects included:

Hydrologic & Hydraulic Analysis: Modeling storm events using Autodesk Civil 3D to evaluate existing conditions and proposed solutions, including a bypass ditch to reroute runoff around the berm.

Site-Specific Data Collection: Coordinated topographic and wetland surveys, documented flood patterns, and analyzed soil characteristics to inform the design process.

Design Solutions: Proposed a comprehensive flood protection system, including an earthen berm with a sheet pile wall, bypass ditch, and retention pond. This system was engineered to safeguard the site against extreme storm events.

Permitting and Implementation:

CATLIN seamlessly navigated permitting requirements by coordinating with NCDEQ, NCDOT, and USACE to address regulatory considerations, including jurisdictional wetland impacts. Once the hydraulic study was approved, we advanced to the design phase, which encompassed:

- Comprehensive geotechnical investigation.
- Design and permitting documentation.
- Bidding assistance and construction oversight.

Our meticulous attention to detail ensured that the flood mitigation system was both cost-effective and resilient, offering long-term protection for the site.

Additionally, CATLIN is prepared to work closely with the City of Lumberton to follow funding requirements for utilizing the City's Drainage Fund. If requested, CATLIN is equipped to prepare quarterly reports, annual financial reporting, reimbursement requests, acting as a liaison between the City and regulatory agencies, coordinating meetings, and completing final reports for grant closeout.

Our Contract Manager, Mr. Nichols, will work closely with our Accounting and Cost Control Team to maintain an Excel spreadsheet reporting CATLIN's progress and ensuring that any grant tasks, if applicable, are completed within the allocated timeframe.

"All invoices/billings were received in a timely manner. Project staff were very knowledgeable of all subject matter and associated regulations, criteria, etc. CATLIN was very effective at managing subcontractors on this multi-faceted, complicated task order and demonstrated effective leadership, management, and control of the project. Interactions between the Contractor and the Government were exceptional. Contractor did a great job communicating with all members of the team."

- *Tamara Murphy, Lead AE Coordinator, Engineering Branch, USACE SAW (Reported via Contractor Performance Assessment Reporting System (CPARs)).*

5) Hourly Rates

A. 2024 STANDARD FEE SCHEDULE

PROFESSIONAL SERVICES	HOURLY RATE
Engineer V	\$205.00
Engineer IV	\$170.00
Engineer III	\$150.00
Engineer II	\$120.00
Engineer I	\$100.00
Geologist V	\$200.00
Geologist IV	\$165.00
Geologist III	\$145.00
Geologist II	\$115.00
Geologist I	\$95.00
Scientist/Technician V	\$135.00
Scientist/Technician IV	\$115.00
Scientist/Technician III	\$100.00
Scientist/Technician II	\$80.00
Scientist/Technician I	\$65.00
EXPENSES	
Per Diem	\$170/day
Mileage - Truck Only	\$200/mile
Mileage – Hauling Equipment	\$3.50/mile
Subcontractor Costs, Laboratory Fees & Materials	Cost Plus 15%

This schedule is effective through December 31, 2024, and is subject to change on an annual basis.



City of Lumberton - Hydraulic Study of the Five Mile Branch Culvert at Bailey Road

DECEMBER 2, 2024



December 2, 2024

Rob Armstrong – Director of Public Works
City of Lumberton
215 South Cedar Street
Lumberton, NC 28359

Re: RFQ—Hydraulic Study of the Five Mile Branch Culvert at Bailey Road

Prime Firm Information

- Legal Entity: LJB Engineering PC
- Year Founded: 1966
- Federal Employer ID: 88-2528344
- NC Engineering License #: C-4947

Dear Mr. Armstrong,

LJB Engineering PC (LJB) is pleased to submit this Statement of Qualifications to the City of Lumberton for the Hydraulic Study of the Five Mile Branch Area at Bailey Road. LJB's core client base in NC is small- to mid-sized communities — similar to Lumberton. Our formula to most successfully serve Lumberton includes the following important factors:

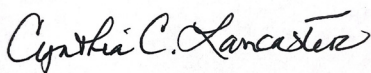
- 1) A highly qualified staff implementing a collaborative, team-oriented approach between the consultant and the City staff.
- 2) Project team that provides turn-key services in a efficient and cost-effective manner.
- 3) Our proven experience working with local, state, and federal agencies to get projects designed, permitted, and approved.

LJB has assembled an exceptional team that is qualified, ready, willing, and interested in providing services to the City for this work. Cindy Lancaster, P.E., CFM, will serve as the project manager and the City's primary point of contact. Cindy is located in our Kernersville office. She will provide project coordination, oversee task managers, track project delivery status, and ensure conformance with project scope.

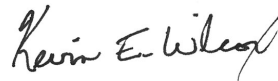
We have included True Line Surveying on our team to provide surveying services for any task that requires this specialized field. We have worked with True Line on previous projects and can be confident in their ability to provide quality service and expertise in their field.

We understand the needs and challenges that are unique to smaller towns and cities, which allows us to better address both the project and longer-term goals of the City. We appreciate the opportunity to share our expertise, and we look forward to continuing our work with the City of Lumberton.

Sincerely,
LJB Engineering PC



Cindy Lancaster, P.E. - Project Manager
CLancaster@LJBInc.com
336-967-7652



Kevin Wilcox, P.E., CSP - President
KWilcox@LJBInc.com
937-259-5039

**LJB NORTH CAROLINA
OFFICE LOCATIONS**

LJB Kernersville Office
311-A South Main Street
Kernersville, NC 27285
(336) 996-9974

LJB Charlotte Office
9115 Harris Corners Pkwy
Suite 420
Charlotte, NC 28269
(980) 381-4036

LJB Raleigh Office
1121 Situs Court
Suite 200
Raleigh, NC 27606
(919) 594-6710



STRUCTURAL

FALL PROTECTION
SAFETY

TRANSPORTATION



SITE DESIGN



SURVEY

WATER
RESOURCESTECHNOLOGY
& INNOVATION

Technical Approach/Understanding of the Program

The RFQ outlines general scope items that are anticipated for this project. The table below shows an executive summary of our approach, followed by more detailed descriptions of each task. If selected, we will meet with the City to discuss specific needs, requirements, constraints, or other critical success factors and refine the approach as necessary to ensure it meets the goals and objectives of the City.

Table 1. Project Approach Executive Summary

TASK	DESCRIPTION / COMPONENTS
Project Coordination / Management	• Pre-scoping meeting to identify requirements and specific areas for field survey and flood risk reduction evaluations. • Kick-Off and status meetings • Continuous project team coordination • Stakeholder outreach if desired by the City
Data Compilation / Collection	• Compile and review data to support study including base mapping; topographic data; parcel/land use data; storm event data; climate/environmental data; built environment/vulnerability data; previous H&H studies; and similar. • Develop field survey for facilitating H&H evaluations. • Identify how to best leverage existing data to perform study in efficient and cost-effective manner.
H&H Analysis – Existing Conditions	• Calculate/Process existing condition modeling inputs • Determine desired design storms to simulate • Develop existing condition hydrologic model and compute hydrologic outputs (e.g. peak flows) • Develop existing condition hydraulic model and compute hydraulic outputs (e.g. flood elevations, velocities, etc.)
Flood Hazard Mapping and Risk Analysis	• Multi-frequency flood inundation mapping for existing conditions • Identification of impacts (buildings, roadways, etc.)
Mitigation Improvements Evaluation	• Perform proposed condition H&H analysis to quantify benefits/impacts for potential culvert crossing improvement options. • Identify and evaluate other potential improvements for reducing flood risk in the Walnut Cove Neighborhood and along Five Mile Branch • Evaluate viable improvement options holistically to identify overall most viable (i.e. “recommended”) option. Evaluation would consider technical flood reduction, as well as constructability, costs, regulatory, and other non-technical viability considerations. • Coordinate with City to confirm selection of culvert option(s) and possibly other drainage improvements to be included with a proposed project. • Develop cost estimates for recommended option.
Study Report	• Prepare report to summarize approaches, findings, and recommendations of study. • Report will include design concept for recommended mitigation option with cost estimate that will be used in benefit/cost analyses and design project implementation

Task 1 – Project Coordination / Management

LJB will coordinate with City (and designated project stakeholders, if directed by City) throughout the project to facilitate a smooth process. Coordination will include project status meetings with the City, as well as informal coordination throughout the project. For formal status meetings, LJB will prepare and distribute an agenda and meeting minutes. Meetings may be held in person or via conference call if deemed adequate to cover updated information. Informal coordination will include phone calls, emails, and similar communications necessary to maintain open lines of communication between LJB and City.



Task 2 – Data Compilation / Collection

LJB will compile and review pertinent data that will be used to conduct the flood study. Anticipated data to be compiled and reviewed include: Effective FIS, topographic data (LiDAR), building/property information, existing land use and comprehensive plan information, soils (SSURGO) data, precipitation data, and local base data (e.g. streets, aerials, etc.). Because the City, NCDOT, and possibly others have been actively implementing various flood mitigation measures in Lumberton in recent years, LJB will need to be aware of any improvements within the Five Mile Branch watershed that could impact flooding in the project focus area. LJB will coordinate with City to identify and obtain specific data/information to use in the study.

In addition to general data compilation, LJB will perform field reconnaissance and targeted field surveys to help ensure that areas of the Walnut Cove neighborhood impacted by flood conveyance along Five-Mile Branch are appropriately evaluated.

Reconnaissance will consist of visual field inspection and photo documentation of Five-Mile Branch upstream and downstream of Bailey Road and other drainage pathways from the neighborhood. Field survey (e.g. pipe sizes and inverts, channel depths, etc.) will be developed as deemed necessary to adequately facilitate accurate drainage analysis and will include up to six (6) natural channel cross sections along Five-Mile Branch and major open channels/ditches. All formal field surveys will conform to FEMA standards and will be sealed/certified by a North Carolina licensed Professional Land Surveyor.



Figure 1. Walnut Cove entrance from Bailey Road (Google Streetview)

Task 3 – Hydrologic and Hydraulic Analysis of Existing Conditions

FEMA's effective hydraulic model for Five-Mile Branch was developed as a Detailed Study in 2010/2011, based on older topography and before major hurricane events in 2016 and 2018. Updated FIRMs for Robeson County were adopted in 2019. Effective model peak flows were computed from the most up-to-date USGS Regression Equations available at the time. The FEMA model indicates that there are three 68-70" corrugated metal pipes conveying Five Mile Branch flows under Bailey Road and that the road is overtopped in storms as frequent as a 10% annual chance event. The FEMA model indicates that upstream flood elevations are impacted by backwater from the I-95 crossing. I-95 is projected to overtop in a 1% annual chance storm event, with backwater extending higher than the sag point of Bailey Road.

LJB will develop hydrologic/hydraulic models for the Five-Mile Branch watershed area affecting the crossing under Bailey Road as the basis for computation of peak flows, BFEs, and analysis of potential flood risk reduction measures. A HEC-HMS (HMS) hydrologic model using SCS rainfall-runoff methodology will be developed to cover the watershed area above I-95, and used for comparison to the FEMA model flows and for estimating flows within and from the Walnut Cove neighborhood to the extent warranted. Hydrologic analysis will include: subbasin delineation; development of hydrologic input parameters; development of routing/storage parameters; and model development, execution, and validation.



Subbasins of the overall watershed will be delineated to the extent appropriate to adequately capture significant aspects that affect peak flows at and near the Bailey Road crossing, along Bailey Road roadside ditches and in floodprone areas of Walnut Cove. Subbasin input parameters (precipitation, Curve Numbers (CNs), Time of Concentration (Tc), etc.) will be calculated using standard SCS methodologies. Frequency-Based Precipitation for the 10% (10 yr), 4% (25-yr), 2% (50-yr), and 1% (100-yr) will be determined from NOAA Atlas 14 values or local stormwater design guidelines (if preferred by the City). Additional storm events can be added if desired by the City. Subbasin CNs will be calculated for existing and future conditions based on impervious cover, land use, and soils information. Tc calculations will use TR-55 methodology employing simplified methodologies (e.g. representative velocities) for flowpath segment travel time calculations. In the HEC-HMS model, LJB will evaluate and develop channel routing parameters for identified reaches of Five Mile Branch such that channel travel times roughly match those estimated

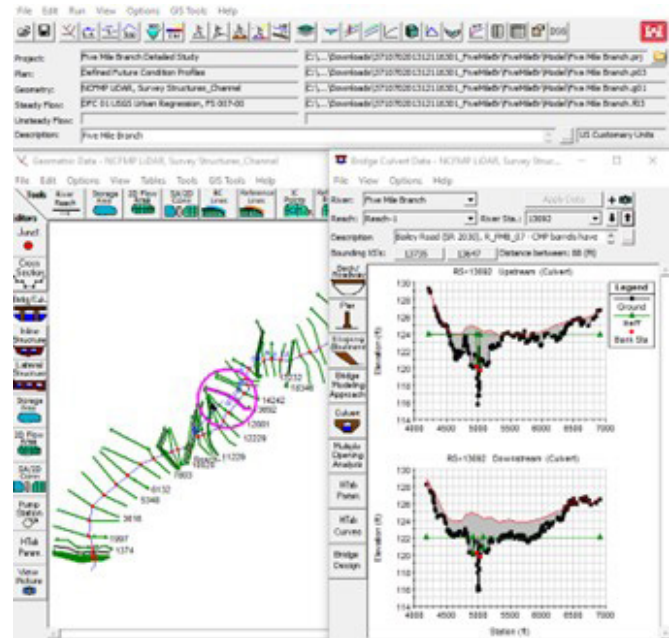


Figure 2 - FEMA Five Mile Branch Hydraulic Model

LJB will develop a 2D HEC-RAS model through the reach of Five-Mile Branch where Bailey Road crosses, with upstream and downstream boundary conditions based on hydrographs generated in the HEC-HMS model, with some parameters pulled from the FEMA 1D HEC-RAS model. The 2D analysis will better account for flood storage and timing of flood flows through areas with significant backwater. The 2D model flow area will also encompass the floodprone portions of the Walnut Cover area. If the earlier field reconnaissance indicated that analysis of neighborhood pipe networks is warranted, these will either be included in the HEC-RAS 2D model or separately modelled in PCSWMM. LJB will compare model results with past storm event data, known flooding extents and previous studies.

Task 4 – Flood Hazard Mapping and Risk Analysis

Once the H&H analysis is complete, LJB will produce mapping products to facilitate visualization of flood hazards and risk assessment. LJB will develop flood inundation boundaries for each modeled storm event. Once the flood hazards are mapped, they will be overlaid with vulnerable structures and roads to illustrate the magnitude and frequency of risk to these assets

Task 5 – Mitigation Improvements Evaluation

Upon completion of flood hazard and risk assessments under existing conditions, LJB will evaluate potential alternative improvements to mitigate/reduce flooding along Bailey Road and in Walnut Cove. LJB will leverage the hydrologic/hydraulic analyses and mapping developed in previous tasks to ascertain root causes of flooding issues such that potential mitigation improvement options can be effectively evaluated. LJB will consider the range of mitigation options like physical infrastructure improvements (channel modifications (dredging), upgrades to existing structure crossings, and bypasses), as well as other active and passive mitigation measures, such as flood barriers, flood proofing, detention, and others. LJB will identify and evaluate potential mitigation strategies and projects to ascertain which ones may be feasible. The evaluation will include the consideration of a number of specific items such as effectiveness, cost, constructability, environmental/permitting, hydraulic impacts, and others.



LJB will rank/prioritize mitigation strategies deemed to be feasible and will prepare up to three (3) mitigation strategy concept alternatives. A summary document/fact sheet for each concept will be prepared to facilitate communication with City officials and other stakeholders. The summary will include project narrative, conceptual design schematic, project cost estimate, benefits and constraints, general impact summary (flood, environmental, economic, etc.), implementation considerations (design/permitting, construction, etc.), and potential funding sources/strategies..

If the City wishes to apply for grant funding for project construction, LJB can perform a formal Benefit/Cost Analysis (BCA). LJB will perform a BCA for the recommended mitigation improvement option(s) using the current/latest version of the FEMA BCA program. Below are the main subtasks of a BCA.

TASK	CONSIDERATIONS / NOTES
Perform BCA	• Determine project benefits of recommended improvement. This is usually associated with “avoided damages/impacts” that are quantified through the H&H study. The FEMA BCA model has built-in functions to express benefits in \$. • Determine project construction (and maintenance costs). • Develop and run BCA analysis with current version of BCA program to calculate overall BCR. • May take several iterations, if initial BCRs < 1.0. Iterations could include sensitivity analyses to identify which project benefit factors provide greatest impact on BCR and determine factor inputs that would be necessary to generate a $BCR \geq 1.0$.
Prepare BCA Documentation	• Create final BCA program spreadsheets with appropriate metadata, attachments, etc. • Prepare technical memorandum summarizing BCA development, approach, and results. As indicated above, BCAs and documentation may need to be separated by project or combined as one.

Task 6 – Study Report and Deliverables

LJB will document all the data analyses, findings, approaches, and recommendations into a final deliverables package. The package will include a report along with supporting materials that will be organized in a manner that can be used to convey information to project stakeholders in a meaningful way— thorough, technically sound, professional in appearance, well organized, and with effective visualizations. The report will contain text, maps, tables, and similar to summarize all aspects of the study. Supporting materials will include (at a minimum): final hydrologic and hydraulic models, supporting GIS files (e.g. flood hazard boundaries/rasters, hydrologic/hydraulic support layers (land use, soils, cross sections, etc.), and calculation summary tables (Excel or similar).



Work Management Plan & Experience of Personnel

LJB has a team of staff with expertise and experience to provide the services required to support the City of Lumberton with the Hydraulic Study of the Five Mile Branch culvert at Bailey Road. Cindy Lancaster, P.E., CFM, will serve as the project manager and will be the primary point of contact for this project. She has experience working with municipalities to analyze flood risks, design infrastructure improvements, develop construction plans, and obtain the necessary permitting for project implementation. LJB has a close-knit, multidisciplinary team to provide support and lead the various tasks required to complete this project. LJB staff have worked with many municipalities for evaluating causes and potential mitigation of flooding in a wide variety of areas, ranging from neighborhoods in headwater areas with small drainage basins to properties within floodplains of streams and rivers, and have completed numerous projects to upgrade culvert crossings, pipe networks, and open conveyances to reduce flood risk. Our selected staff to lead each component of this project have worked together on numerous projects and have developed solid working relationships. .

In our organizational chart on the following page, we have identified specialty experts and support staff for each major service area listed in the RFQ. These leads will help support Cindy and develop a scope of services, cost estimate, and project plan. LJB will be supported by our partners True Line Surveying for surveying services. LJB has existing relationships with them and will work as a cohesive unit to provide seamless service to the City.

All LJB projects follow an established project management process that is patterned after the Project Management Institute's (PMI) global standard for project management. A standard project includes a kick-off meeting where the scope, schedule, budget, and expectations are finalized to meet our clients' needs and standards. These outcomes and expectations become the basis for a project-specific quality management plan.

As outlined in the project's quality management plan, coordination of the project approach between the task coordinator and peer reviewer occurs at the start of the project and is reinforced throughout with the peer review of completed tasks. Project progress updates are provided on a monthly basis to verify that the project is on course. As part of LJB's internal quality management program, deliverables on this project will be reviewed by an assigned technical reviewer. A senior professional is responsible for monthly reviews of the project to ensure technical accuracy and compliance with local, state, and federal standards/regulations.

To ensure that project goals are achieved, LJB conducts project evaluations with the client's project representative at each key project milestone. These evaluations provide a rating of LJB's work on various project elements, but, most importantly, allow us to determine if our clients are satisfied with the conduct of our work on any of these elements. When done at the various project milestones, our project managers have time to make any necessary corrections to ensure client and project goals are met.

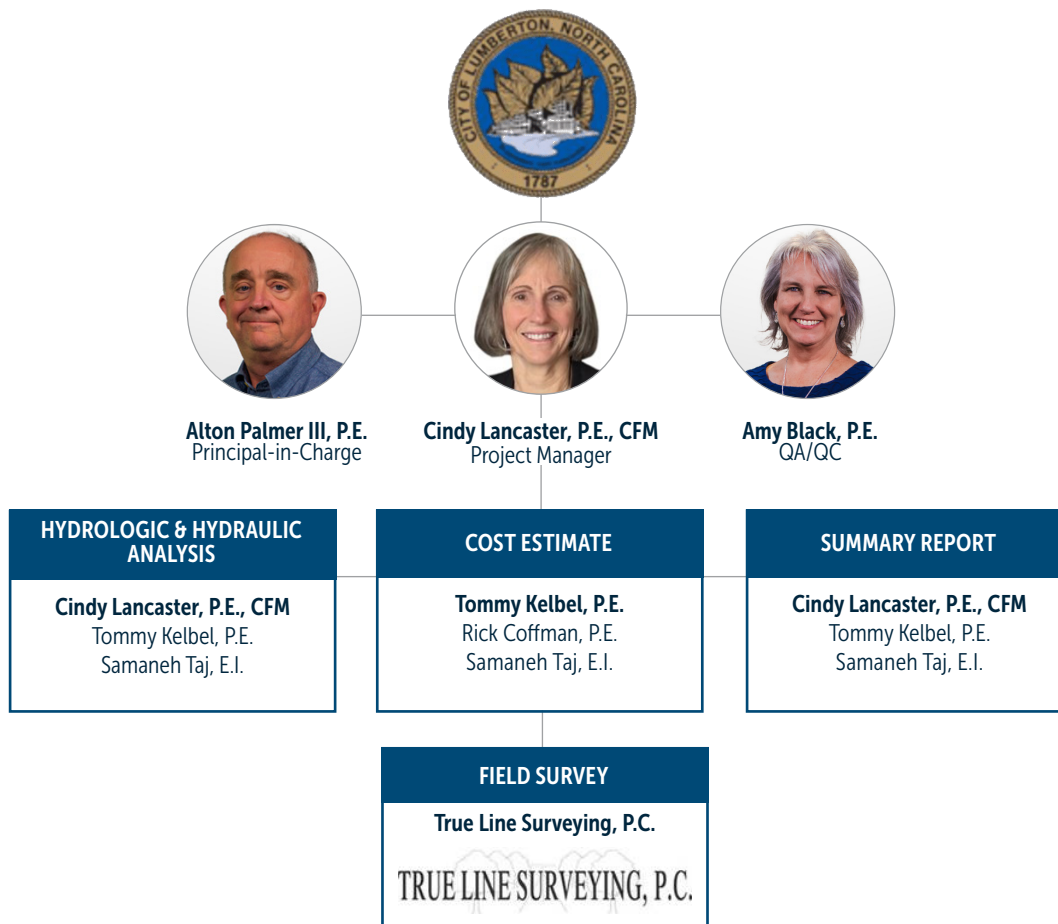
Resumes and brief bios are provided to demonstrate the experience of each team member listed. We are confident that our team can effectively serve as an extension of the City's staff for projects under this contract.

LJB is currently providing engineering services for the following North Carolina municipalities:

- City of Greensboro
- City of High Point
- City of Winston-Salem
- Village of Clemmons
- City of Charlotte
- Town of Holly Springs
- Town of Bermuda Run
- Town of Wake Forest
- Town of Pembroke
- Village of Wesley Chapel
- City of Lowell
- Town of Zebulon



Organizational Chart



Principal-in-Charge



Alton Palmer III, P.E.

Al directs the Water/Civil and Land Development Group and brings over 40 years of site and roadway design experience, working in both the public and private sector throughout New England and the Mid-Atlantic Area. His expertise includes site selection, feasibility evaluation, civil and site design, and permitting for a wide variety of land development projects including institutional projects such as courthouses, hospitals, schools, retail ranging in size from neighborhood shopping centers to super regional malls, office and hospitality uses, and residential developments. He has had senior responsibility for all project phases, from conceptual design through contract administration and inspection during construction.

Education:

B.S., Civil Engineering,
University of Connecticut

Registration:

Professional Engineer – ME, VA

Cindy Lancaster, P.E., CFM

PROJECT MANAGER / HYDROLOGIC & HYDRAULIC ANALYSIS LEAD / SUMMARY REPORT LEAD



YEARS OF EXPERIENCE:
31

EDUCATION:
B.S., M.S., Civil Engineering,
North Carolina State University

M.S., Environmental/Water
Resources Engineering,
University of Texas

REGISTRATION:
Professional Engineer – NC

OFFICE LOCATION:
Kernersville, NC

Cindy's experience spans more than 31 years of involvement with various aspects of water resources engineering, performing, and managing a variety of stormwater projects for local governments and private developers with a focus on integrating solutions to address flooding, erosion and water quality concerns. Cindy provides services on projects involving planning, design, and permitting for stormwater infrastructure and for stream and lake improvements; hydrologic and hydraulic modeling and analysis; watershed and stormwater program planning; and compliance at the local, state, and federal levels.

Relevant Experience

Town of Bermuda Run, NC – Watershed Drainage Analysis

Project Manager – Developed hydrologic analysis and pipe system modeling, combined with 2D modelling for overland flows and golf course ponds, to evaluate flood conveyance through the watershed under existing conditions and potential future conditions. Proposed and assessed options for addressing some of the most problematic areas.

Village of Clemmons, NC – Multiple Culvert Replacements/CIP Planning and Analysis

Developed a system analysis for a neighborhood to check potential downstream impacts of proposed culvert replacements. Investigated options for replacement of a degraded pond outlet under a Village road prone to frequent overtopping and proposed and evaluated sizing and configurations for seven additional crossings in two watersheds for which construction has now been completed or designs are in progress.

City of Greensboro, NC - Self-Help Ventures - Revolution Mill Flood Risk Management

Project manager for numerous efforts regarding flood risk management for the redevelopment of this historic former textile mill owned and managed by Self-Help Ventures.

UNC-Chapel Hill – Park & Ride Pond Retrofit

Developed H&H analysis and design for retrofitting a stormwater detention pond as a stormwater wetland for nutrient reduction credits. Stormwater detention function had to be retained as part of the retrofit.

Town of Wake Forest – Toms Creek Watershed Study

Led the analysis for the watershed planning effort, focused mostly on flooding and erosion concerns. Provided prioritized list of proposed improvements with associated costs.

City of High Point, NC - Kensington/Dovershire Drainage Improvements

Project manager for development of H&H analysis, and preliminary design. Scope changes were later warranted, and plans were modified accordingly. The project is currently under construction.





Amy Black, P.E. – QA/QC

Amy's experience spans more than 23 years of involvement with various aspects of water resources engineering. She has provided stormwater program support services to municipalities across the state. Her experience includes project management, permit compliance, stormwater utility development, stormwater system design, development of engineering designs and construction plans, construction management, GIS data analysis, hydrologic and hydraulic modeling, dam engineering, and Emergency Action Plans for dams.

Education:

B.S., Civil Engineering
North Carolina State University

Registration:

Professional Engineer – NC

Office Location:

Kernersville, NC

RELEVANT PROJECT EXPERIENCE

- Stormwater Program Support – City of Statesville, NC
- Spring Park Slope Stabilization, Stream Restoration, Drainage, and Roadway Improvements – City of Winston Salem
- Bass Lake Dam Channel Improvements – Town of Holly Springs, NC
- Drainage Improvements – Village of Clemmons, NC
- Hunter Acres Pond/Lynbridge Pond – City of Charlotte, NC
- Dogwood Park Dam – Village of Wesley Chapel, NC



Tommy Kelbel, P.E. – Cost Estimate Lead

Tommy has six years of experience providing site designs and construction plans for various types of facilities. His experience includes stormwater infrastructure design, grading plans, utility plans, erosion and sediment control plans, water and sewer infrastructure design, roadway design, and hydraulic modeling for stormwater systems. He has survey experience and creates survey maps using field data and LIDAR point cloud data. Tommy has worked with municipalities and regulatory agencies to obtain permits and plan approvals.

Education:

B.S., Civil Engineering
University of Kentucky

Registration:

Professional Engineer – NC

Office Location:

Kernersville, NC

RELEVANT PROJECT EXPERIENCE

- Hunter Acres Pond – Charlotte, NC
- Doublegate Drive Culvert Replacement – Clemmons, NC
- Springside Drive Culvert Replacement – Clemmons, NC
- Smithfield CSX Culvert Expansion – Smithfield, NC



Rick Coffman, P.E. – Cost Estimate Support

Rick is a project engineer with three decades of hydraulic, bridge, and highway design experience. He has an educational background in hydraulic and hydrologic analysis and design, as well as structural engineering with emphasis in theoretical structural analysis and computer applications. Throughout his career, Rick has gained knowledge in the analysis and development of hydraulic and hydrology studies for bridges across the state and in the Southeast. He also has significant experience in storm drainage and erosion and sediment control gained through his design work on NCDOT projects.

Education:

B.S., Civil Engineering
West Virginia University
M.S., Civil Engineering
West Virginia University

Registration:

Professional Engineer –
NC, SC, NJ, MI, FL, WV
Structural Engineer – GA

Office Location:

Raleigh, NC

RELEVANT PROJECT EXPERIENCE

- HL-0036 Hope Mills Multi-Use Path – Hope Mills, NC
- 1-77 High Occupancy Toll Lanes (HOT Lanes) – Private/Public Partnership
- W-5702G - U.S. 264 Superstreet – Beaufort County, NC
- A-171560 NC 101 Relocation East of Michael J. Smith Airport
- 17BP.14 Group 3 Bridge Replacements – Macon County, NC
- Novack Bridge Replacement - Winston-Salem, NC

**Education:**

B.S., Civil Engineering,
Iran University of Science and
Technology
M.S., Civil & Environmental
Engineering,
University of North Carolina Charlotte

Registration:

EI Environmental, GIS

Office Location:

Charlotte, NC

Samaneh Taj, E.I. – H&H Analysis, Cost Estimate, Summary Report Support

Samaneh has 4 years of experience in engineering encompassing general civil, structural, and water resources disciplines. Her unique experience spans the design, management, reporting, modeling, and analysis for stormwater and hydraulics. She has designed stormwater infrastructure to meet all regulatory requirements, prepared stormwater management reports, and modeled pre- and post-development watershed subbasins to ensure compliance with regulations. She created hydrological models to provide design flows for use in the design of site BMPs. She has also conducted hydraulic analysis using HEC-RAS to assess the flood risk for proposed development, updated floodplain maps and base flood elevations, and prepared flood studies.

RELEVANT PROJECT EXPERIENCE

- Toms Creek Watershed Study – Wake Forest, NC
- Smithfield Stormwater Program Action Plan – Smithfield, NC
- Stormwater Management Plan and Asset Inventory Assessment – Pembroke, NC
- Lake Glenwood Dam Repair – Greenville, NC
- Devonshire Street Stormwater Improvements – Winston-Salem, NC

Subconsultants

TRUE LINE SURVEYING, P.C.

True Line Surveying, PC

True Line Surveying, PC is a leading provider in precise surveying and mapping services for residential, commercial and public sector projects in the real estate, construction and engineering industries. The company was founded in 1999 and works throughout the state of North Carolina to deliver successful projects to their clients. Using the latest technology, their team strives to provide extremely accurate results, ensuring a smooth start to every project.

Curk T. Lane, PLS – Survey Lead

Curk is a graduate of Wake Technical Community College where he received an Associate of Science degree in Surveying Technology. Mr. Lane started True Line Surveying in 1999 and is registered as a professional land surveyor with the North Carolina Board of Engineers and Land Surveyors. He has more than 30 years of experience in the field of professional land surveying and has extensive knowledge in construction management.

Education:

A.S., Survey Technology
Wake Technical Community College

Registration:

Professional Land Surveyor – NC

Office Location:

Clayton, NC



Experience of the Firm

LJB has assembled a team to support the the Town with the categories listed below. The projects listed show our Team's qualifications and experience for each category.

CSX and I-95 Culvert Improvement Project

SMITHFIELD, NC

Client:

Town of Smithfield, NC

Client Contact:

William (Bill) Dreitzler
Town Engineer
(919) 818-2235

bdreitzler@adm2engineering.com

Key Staff:

Cindy Lancaster, P.E. – Project
Manager for H&H Analysis Phase
Tommy Kelbel, P.E. – Project
Manager Manager for Design/
Construction Plans Phase
Amy Black, P.E. –Field
Reconnaissance Support/
Coordination with Agencies

The Town of Smithfield is experiencing local flooding after large rainfall events within the industrial warehouse and neighboring residential homes along South Brightleaf Boulevard near East Huntley Street. The topography is extremely flat and the existing drainage channel that conveys runoff from this area flows through a single existing 42" RCP under the CSX rail line and further downstream, through an existing pipe under I-95. LJB developed analysis of the runoff and flooding in this area. The Town was able to obtain grant funding. LJB has prepared construction plans for boring and jacking two additional pipes under the railroad and has recently received approval from CSX.

The original H&H analysis indicated that additional flood conveyance capacity under I-95 would be required in order to avoid increasing flood risk to the small area downstream of the CSX railroad and upstream of I-95. Resolving this issue involved additional analysis for options to supplement the existing I-95 culvert for overall maximum flood reduction benefit to the floodprone areas. After considerable discussions with NCDOT, an overall plan for the CSX and I-95 improvements has been agreed upon.

The project includes coordination with CSX for access on their right-of-way during survey and geotechnical investigations, coordination with NCDOT to obtain records of existing stormwater and culvert assets within their right-of-way, access planning through adjoining land owners, HEC-HMS and HEC-RAS 2D modeling, preparation of opinions of cost, permitting, construction observation, as-builts and close-out. Project is anticipated to begin construction in 2025.



Current Culvert under CSX Railroad



Clemmons Stormwater Improvements – Culvert Replacements

CLEMMONS, NC

Client:
Village of Clemmons, NC

Client Contact:
Mike Gunnell
Village Manager
(336) 439-5187
mgunnell@clemmons.org

Key Staff:
Amy Black, P.E. - Project Manager
Cindy Lancaster, P.E., CFM - H&H Analysis
Tommy Kelbel, P.E. - Support
Samaneh Taj, E.I. - Support
Rick Coffman, P.E. - Structural

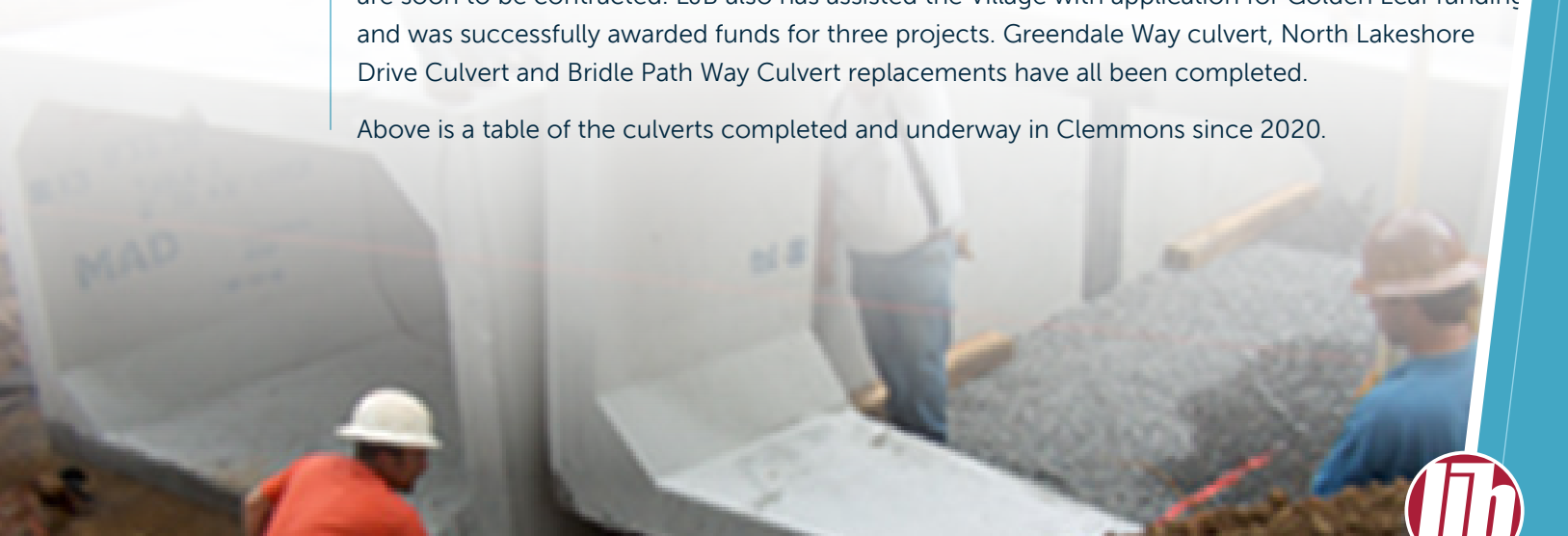
LJB has worked closely with the Village of Clemmons for implementation of its stormwater CIP. The Village has periodically engaged LJB for initial hydrologic and hydraulic analyses, conceptual plans, and cost estimates to be developed as potential projects were identified by Village staff for inclusion in the CIP list. This information was used by Village staff for prioritizing and planning for project implementation as funding became available.

Culvert Crossing	Floodplain	Design/Permit	Construction
Greenbrook Drive	Yes	Complete	Complete
Mendelssohn Drive	Yes	Complete	Complete
Tanglebrook Trail	Yes	Complete	Complete
Doublegate Drive	Yes	Complete	Underway
Springside Drive		Complete	Complete
Greendale Way		Complete	Complete
Parkdale Drive		Complete	Underway
Bridle Path Way		Complete	Underway
N Lakeshore Drive		Complete	Underway
Brookland Drive		Underway	2025
Springside Drive-South		Underway	2025
N. Lakeshore Drive-West		Underway	2025

Four culvert replacement projects in the Clemmons West Drainage Basin were all relatively high on the CIP list. LJB was contracted to provide a hydraulic analysis and subsequently to complete the design and construction plans. The replacement on Tanglebrook Drive is on Johnson Creek and the other three are on Johnson Creek Tributary Two. Both streams are FEMA-regulated, and No-Rise Certifications were required for permitting. Additional hydraulic analysis was provided to ensure that the loss of flood storage upstream of undersized culverts would not be projected to have negative downstream impacts. The analysis indicated no problematic downstream impacts, so the Village proceeded with the culvert replacements. A LOMR submittal to FEMA is being prepared for all four culvert improvements now that the final culvert has been completed. The Village funded the replacements separately over the past few years, with Greenbrook and Mendelssohn completed in 2021, Tanglebrook in 2023, and Doublegate earlier this year.

In another residential area that included a couple of ponds, LJB developed an overall hydrologic and hydraulic analysis to determine the most effective plan scenario, with particular focus on a pond where the failing outlet under a Town street was resulting in frequent overtopping of the road. The Village chose to drain the pond and install a new culvert as the outlet, allowing the formerly wet pond area to now serve as flood storage. This culvert under Springside Drive was installed in 2022, the downstream culvert replacement under Greendale Way was recently completed, and two more are soon to be contracted. LJB also has assisted the Village with application for Golden Leaf funding and was successfully awarded funds for three projects. Greendale Way culvert, North Lakeshore Drive Culvert and Bridle Path Way Culvert replacements have all been completed.

Above is a table of the culverts completed and underway in Clemmons since 2020.



Stormwater Utility Development, CIP Development & Asset Management Support

PEMBROKE, NC

Client:
Town of Pembroke, NC

Client Contact:
Victoria Carter
Disaster Recovery Coordinator
(910) 775-4603

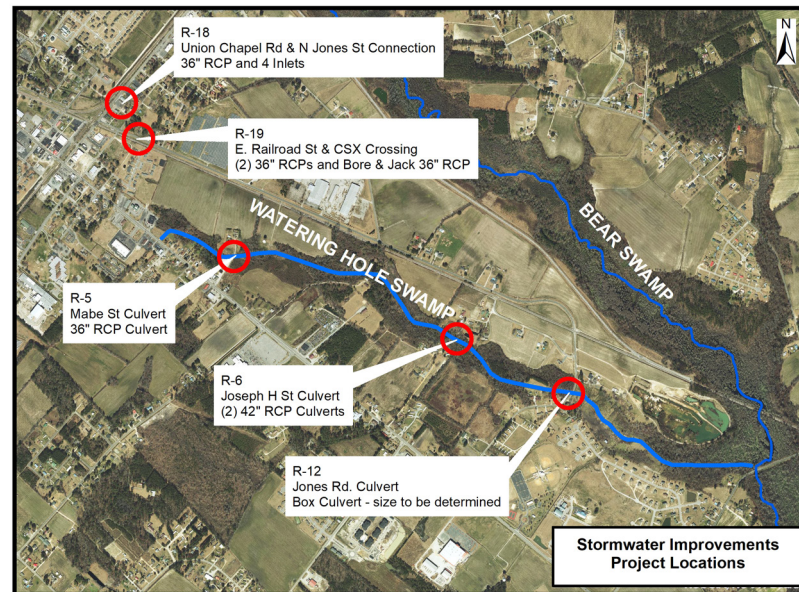
Key Staff:
Amy Black, P.E. - Project Manager
Cindy Lancaster, P.E. CFM - H&H Analysis
Tommy Kelbel, P.E. - Support
Samanah Taj, E.I. - Support

LJB has been supporting the Town of Pembroke in a variety of initiatives since June 2022. The LJB Team provided an evaluation and development of a stormwater utility that was implemented earlier this year. As part of the grant-funded study, LJB determined Equivalent Residential Unit (ERU), estimated ERUs within the town limits, evaluated program and associated staffing/resource needs, and evaluated rate structures and associated revenues. LJB compiled the findings in a project report and presented the study with recommendations to the Town Council. The engineering services for this endeavor included a public awareness campaign to provide general stormwater awareness as well as information regarding the stormwater utility and need for this specialized funding. The campaign included community meetings, mailed letters and brochure, and multiple social media blasts.

As part of the evaluation of program needs, LJB developed a stormwater capital improvement plan (CIP). For this task, LJB leveraged a previous engineering study to evaluate and prioritize projects. The Town had completed a Hydraulic Study several years prior, and the resulting report listed numerous recommended projects, but did not rank them in a relative priority. LJB developed a set of weighted prioritization criteria to allow each project to be ranked based on an equitable comparison. LJB and town staff completed a weighted matrix for each of the projects and the data was evaluated to provide an overall ranking of projects. The town was able to use this data to apply for grant funding for the highest priority projects that will provide the most benefit to the community.

Through another grant-funded project, LJB is performing an asset inventory and condition assessment to identify and prioritize maintenance and repair needs. As part of this project, several outfalls have been evaluated for capacity. The Town of Pembroke experiences flooding during heavy rain events, so it was not surprising to find multiple areas with undersized infrastructure. This project is currently underway and will include a final report, a Stormwater Management Plan, and an updated CIP to include the new recommendations.

LJB also assisted the Town in developing a grant application to the NC Local Assistance for Stormwater Investments Program (LASII), which was subsequently awarded to the Town. LJB was selected to provide the engineering design and permitting services for this project and preliminary design is underway. This project includes 3 culvert replacements along Watering Hole Swamp, additional culverts at East Railroad Street and a CSX crossing, and improvements between Union Chapel Road and North Jones Street. This outfall system transports runoff from the downtown area and will reduce the flooding risks in this area.



Devonshire Street Stormwater Improvements

WINSTON-SALEM, NC

Client:
City of Winston-Salem

Client Contact:
Todd Love
Stormwater Division
(336) 734-1318
toddml@cityofws.org

Key Staff:
Amy Black, P.E. – Project
Manager
Cindy Lancaster, P.E. – H&H
Analysis
Tommy Kelbel, P.E. – Modeling/
Data Collection

Failing corrugated metal 36" and 48" pipes under East Devonshire Street in an older neighborhood of Winston-Salem caused a sinkhole which required an emergency repair a few years back. Recently, the City contracted LJB to provide an analysis of the 90-acre basin draining to East Devonshire to locate problem areas and poor drainage conditions that could be addressed in conjunction with the pipe replacement. The drainage basin is mostly residential with a mix of underground pipes and open channels. The City does not have drainage easements across most of these private properties.

LJB developed hydrographs for 24 subbasins in the drainage area and used PC SWMM for the hydraulic analysis of pipe and channel flows. Two definite areas of inadequate drainage capacity were identified in the subbasins draining to the CMPs and recommended for upgrades. LJB also evaluated excavating a detention storage pond, potentially with water quality enhancements, but it was determined not feasible to incorporate these improvements into the more urgently needed replacement of the Devonshire pipes.

In order to meet design standards for a comprehensive system improvement, the existing concrete arch pipe at the downstream end of East Devonshire would also need to be replaced. The arch pipe is under a NCDOT road and will require extensive coordination with NCDOT, adding time and cost to the project. LJB completed the final report for the drainage study in January 2024 and the City is considering options before moving ahead on design and preparation of construction plans.

Bermuda Run Coordination and TRC Reviews

BERMUDA RUN, NC

Client:
Town of Bermuda Run

Client Contact:
Andrew Meadwell
Town Manager
(336) 998-0906
ameadwell@townofbr.com

Key Staff:
Cindy Lancaster, P.E., CFM -
Project Manager / H&H Analysis

LJB is responsible for meticulously reviewing the stormwater, drainage, and transportation aspects of site plans and construction documents. This includes conducting detailed stormwater analyses and ensuring that all submittals to the Town comply with the Town Ordinance requirements. As part of this process, LJB marks up the submitted plans, highlighting areas that need attention or correction. These markups are submitted via email to both the Town and the applicants, ensuring that all parties are informed of the necessary changes and compliance issues.

In addition to this, LJB plays a crucial role in facilitating communication between the Town and the applicants. They engage directly with the applicants to address any questions or concerns regarding the comments and required modifications. This involves clarifying technical details, providing guidance on how to meet the ordinance requirements, and ensuring that the applicants understand the rationale behind each comment. By maintaining open and effective communication, LJB helps to streamline the approval process and ensures that all projects meet the necessary standards for stormwater management, drainage, and transportation infrastructure.

Familiarity with Locality

LJB is familiar with the Lumberton area. Our project manager, Cindy Lancaster, P.E., CFM, has worked with the Public Works Director for Lumberton in the past on a drainage relief analysis for neighborhoods in the Oak Ridge area and a CSX railroad culvert upgrade adjacent to Linkhaw Road. For the drainage relief project, we provided a watershed flood analyses and recommendations to reduce the risk of local area flooding for the City of Lumberton. This work involved modeling streams and infrastructure in a flood-prone area and understanding how the quick storms affect the stormwater systems in these areas. For the CSX culvert upgrade the project goal is to minimize flood risk to the extent feasible given the topography of the flood-prone areas and the constraints of the site conditions and the CSX constraints for the culvert design and installation.

We have worked with the close-by Town of Pembroke on multiple grant funded projects over the past few years. We have held community meetings as part of a Stormwater Awareness Campaign, developed an account file for the recently implemented Stormwater Utility, and developed a Capital Improvement Plan (CIP) that included providing weighted criteria to develop a prioritized list of projects needed to address flooding issues in the area. We are currently completing a stormwater asset inventory and condition assessment, and we were recently awarded a contract for the engineering design and permitting of a LASII funded project for stormwater improvements. These projects provided opportunities for our team to spend time in the area surrounding Lumberton and become familiar with the topography and hydraulic characteristics of this area.

We also have worked with the Lumbee Tribe of NC under FEMA grant funding to repair and improve the dam at the Cultural Center. The design for that project involved modeling the streams in the area and considering how backwater from the Lumber River affects those tributary flows. During the construction, Amy Black was in the Pembroke area on a regular basis and our inspector rented a home near the university for five months to be onsite daily. The contractor for that project was from Anson County but used several sub-contractors that are local to the Pembroke area. We enjoyed meeting, working with, and getting to know the local community during that project.

We also completed a smaller design project for Robeson County Drainage District to stabilize a segment of streambank along Moss Neck Swamp just downstream of Moss Neck Road. The design for this project involved the flow characteristics of the slow-moving swamp streams of this area and knowing how the flows change in flash storms that bring large flows to the normally calm, slow-moving waterways. Again, we enjoyed working with and getting to know the local community during our work on this project.

All of these projects have provided opportunities for LJB to become familiar with the area streams, channels, tributaries, and the stormwater infrastructure. Additionally, these projects have given our staff the opportunity to work in the area, making ourselves familiar with local permitting agencies, as well as local contractors and many people of your community. We look forward to having more opportunities to work with the Lumberton community.



Grant Funding Expertise

LJB has worked with municipalities to obtain grant funding and designed projects and prepared bid packages to meet specific funding source requirements. Recently, we assisted the Village of Clemmons with submittals for three projects through Golden Leaf, and all three projects were approved for funding. As the projects move forward, we will work with the Village to make sure that all grant requirements are met as we complete the design and draft bid documents, and we will provide project updates, as they are required, for update submittals as the design and construction progresses.



After Hurricane Matthew and Hurricane Florence, LJB worked with various organizations to submit funding requests for damage repairs. LJB provided an inspection and evaluation for damage at Bass Lake Park Dam following Hurricane Matthew and assisted the Town of Holly Springs with concept repair plans and cost estimate for the application for FEMA Public Assistance funding. We provided technical responses to FEMA staff during their review of the application and provided project status updates during the design and construction, as needed, to meet funding requirements. We provided information required for FEMA's close out documentation so the Town could receive the final payment.

We have completed design and bid documents for projects that are being funded under the American Rescue Plan Act funding. LJB also has experience with Community Development Block Grant – Disaster Recovery funds and Clean Water Management Trust funds. We are also currently working with a municipality to meet the eligibility requirements for a FEMA High Hazard Potential Dam Program Grant to modify a dam in a community park that has deficiencies and needs modification to bring the dam back into compliance. LJB has worked with municipalities on transportation projects being funded through NCDOT approved programs and is experienced in the various submittals required to get concept projects approved for funding and get funded projects approved for construction.



LJB has experience working within the parameters of various grant and funding sources. We will work with the City to ensure that requirements are met for any project that is being funded under a specific program. In addition to funding programs, LJB has a substantial track record of developing designs that can meet the goals and objectives while including cost saving measures into the design. LJB understands that funding is an important consideration for any project. We look forward to working with City staff to obtain funding for needed projects and developing cost-saving plans to allow more improvements to be completed with limited funds.



Standard Rate Schedule

The LJB Team's Hourly Rates for all classifications of personnel on this project are shown on the rate table below.

2024 NC Water Resources Fee Schedule

Principal Engineer	\$270.00/HR
Sr. Project Manager / Sr. Engineer	\$190.00/HR
Project Manager (PE)	\$180.00/HR
Project Engineer II (PE)	\$150.00/HR
Project Engineer I (PE)	\$130.00/HR
Environmental Scientist	\$125.00/HR
Engineer Intern	\$120.00/HR
Design Technician	\$110.00/HR
Construction Inspector	\$100.00/HR
Mileage	\$0.65/mile
Expenses (not unit priced)	Cost + 15%
Sub-Contractors	Cost + 10%

Note: This schedule is subject to revision at the first of each calendar year. These rates include fringe benefits, indirect costs, and profits.

Proposed Availability

NAME	ROLE	% AVAILABLE
Cindy Lancaster, P.E., CFM	Project Manager	55%
Amy Black, P.E.	Lead	45%
Tommy Kelbel, P.E.	Lead	35%
Rick Coffman, P.E.	Support	35%
Samaneh Taj, E.I.	Support	35%
Al Palmer, P.E.	PIC	25%
Curk T. Lane, PLS	Survey Lead	40%



Lumberton City Council

Item: IV.J.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Public Works

Submission Date: 01/07/2025

Subject: Shelter Repair at Public Works

Summary/Background of Subject Matter:

The open sided shelter at Public Works has been damaged by moving equipment. We reached out to three contractors who specialize in the repair of metal buildings. Only two provided quotes. Caines Construction was the lowest bid at \$8,771.00 Cornerstone Construction bid was \$15,800. M&E Contracting did not bid.

Staff Recommendation:

Public Works recommends awarding the shelter repair project to Caines Construction for \$8,771.00 to be paid for out of the water and sewer capital reserve fund.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Public Works

ATTACHMENTS:

1. CCF_001366
2. CCF_001364



1032 71st School Road
Fayetteville, NC 28314

www.mecommercialcontractor.com

Ryan Maroney
Project Manager

Ph: (910) 867-8708 ext.103

Fax: (910) 867-8908

Cell: (910) 322-2422

E: Ryan@m-eci.com



Caines Construction Co.
8967 Peacock Rd.
Chadbourn, NC 28431
910-654-4020

NC Lic # 16068
SC Lic # G114788

January 6, 2025

Lumberton Public Works
Lumberton, N.C.

Repair Proposal

Repair Proposal:

Remove 10 damaged roof panels on shelter.

Remove bent eve strut.

Remove gutter and downspouts on damaged side of shelter.

Furnish and install 10 new roof panels, 1 eve strut, gutter, and 2 downspouts.

Eight Thousand, Seven Hundred, Seventy-One Dollars & 00/100
\$ 8,771.00

Method of Payment

\$ 8,771.00 when job is complete

Date of Acceptance: _____ Sign: _____

Sign: _____

Caines Construction Co. Signed By: _____

"Concerned Builders of Reliable Products"



Licensed General Contractor
Cornerstone Construction Company

9833 Old Whiteville Road † Lumberton, North Carolina 28358

To: City of Lumberton / Gary Henderson

Date 12/16/24

From: Jason Fairfax

G.C. license# 63837

P-1 Plumbing License# 26801

910-827-5732

jfairfax@hughes.net

RE: Roof Repairs to Pre-engineered building / Damage by truck

~ Proposed work~

1-Remove existing roof panels Approx. 30' (PBR) and (8'')strut

2- Remove existing Gutter

3- Install new Galvalume 26guage PBR panels / strut and Gutter

Cost: \$15,800.00

Lumberton City Council

Item: IV.K.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Public Works

Submission Date: 01/07/2025

Subject: Gavintown Lift Station Pumps

Summary/Background of Subject Matter:

The Gavintown Rd Lift Station is in need of replacement sewer pumps due to increased wear over time and the cost to repair vs. replacement. Staff has requested quotes from Tencarva for 2 replacement pumps of the same design that the station was built with. This quote is for \$16,148.00

Staff Recommendation:

Public Works recommends council approval of the purchase of 2 replacement pumps for the Gavintown Rd. Lift Station in the amount of \$16,148.00 from Tencarva Machinery Company. With funds being made available from the water and sewer capital reserve fund.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Public Works

ATTACHMENTS:

1. BP-50C31_20250107_123030



Sales Quotation

Quotation Number: T143423	Quotation Date: 12/16/2024	Sales Engineer: SAM EDWARDS
Revision No: 2	Date Printed: 12/17/2024	Phone: (O) 336-665-0250
Customer Number: 110810		sedwards@tencarva.com
Customer RFQ	Order Contact: SAM EDWARDS	Branch: NC GREENSBORO

Document Address:
CITY OF LUMBERTON
ATTN ACCOUNTS PAYABLE
PO BOX 1388
LUMBERTON NC 28358

Delivery Address:
CITY OF LUMBERTON
WATER PLANT (LOWERY ST)
215 S. CEDAR STREET
LUMBERTON NC 28358

Payment Terms: Net 30	Customer Contact: KEVIN BURNS
Terms of Delivery: FOB SHIPPING POINT PREPAID & ALLOW	Customer Phone: 910-827-2946
Ship Via: BEST WAY FREIGHT ALLOWED	Customer Email: KBURNS@CI.LUMBERTON.NC.US

QUOTE VALID FOR 20 DAYS

Pos	Part No / Description	QTY	Unit	Sell Price	Ext. Sell Price
1	T4C60SC-B /F PUMP 4IN SUPER-T W/SPOOLS CI W/ERADICATER W/FLANGES CURRENT INVENTORY - 13 UNITS IN STOCK AT FACTORY IN MANSFIELD, OH	2	EA	8,074.00	16,148.00

Sub Total: 16,148.00

Tax Total: 1,130.36

Gross Total: 17,278.36

GREENSBORO ADDRESS:
TENCARVA MACHINERY COMPANY
1115 PLEASANT RIDGE RD
GREENSBORO, NC 27409
PHONE (336)665-0250
FAX (336)665-0303
CREDIT@TENCARVA.COM

REMIT TO BY MAIL/ONLINE:
TENCARVA MACHINERY
PO BOX 409897
ATLANTA, GA 30384

WWW.TENCARVA.COM

REMIT BY ACH:
RECEIVING BANK: BANK OF AMERICA, N.A.
ABA/ROUTING #: 053000196
ACCOUNT #: 000021-208-186

EMAIL FOR REMITTANCE: PAYMENTS@TENCARVA.COM



Sales Quotation

Quotation Number: T143423	Quotation Date: 12/16/2024	Sales Engineer: SAM EDWARDS
Revision No: 2	Date Printed: 12/17/2024	Phone: (O) 336-665-0250
Customer Number: 110810		sedwards@tencarva.com
Customer RFQ	Order Contact: SAM EDWARDS	Branch: NC GREENSBORO

Terms and Conditions

Tencarva Machinery Company ("Tencarva") agrees to contract with Buyer for the sale of the equipment described herein (the "Products") and services to be performed by Tencarva in connection with the Products (the "Services") only if Buyer's acceptance of Tencarva's offer to sell contains all of the terms set forth herein. Tencarva hereby objects to any additional terms. Any confirmatory action by the Buyer or acceptance of the Products or Services shall constitute assent to these terms and any additional terms set forth therein shall not be effective or binding.

1. The Services are warranted to be performed in a workmanlike manner. The determination of compliance with this warranty will be based on testing under controlled conditions with calibrated instruments in accordance with the standards of the Hydraulic Institute or other nationally recognized accreditation standards. If any nonconformity with this warranty appears within 45 days after the Services are performed, the exclusive obligation of Tencarva shall be to re-perform the nonconforming Services in a conforming manner. Such a correction of nonconformities shall be Buyer's exclusive remedy with respect to the Services delivered or performed by Tencarva. Tencarva's liability on any claim shall in no case exceed the purchase price allocable to the Services which gives rise to the claim.

2. To the extent assignable, Tencarva shall assign to Buyer, without recourse to Tencarva, all warranties of the manufacturer of the Products made with respect to the Products. Tencarva makes NO IMPLIED WARRANTIES OF ANY TYPE, WHETHER OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE with respect to the Products or Services, and no warranties or guaranties, express or implied, are made by Tencarva except as specifically provided herein.

3. IN NO EVENT SHALL TENCARVA BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS AND ATTORNEY'S FEES, WITH RESPECT TO THE PRODUCTS OR SERVICES OR OTHERWISE. Tencarva shall have no liability with respect to any installation adjustments, repairs or other work done upon or in connection with the Products by Buyer or others. Any cause of action against Tencarva arising out of or relating to the Products or the Services shall expire unless brought within one year of time of accrual thereof.

4. Once placed, orders for the Products or Services by Buyer may be canceled only with Tencarva's approval upon payment by Buyer for work performed and/or expenses incurred by Tencarva to the date of cancellation. Buyer shall pay Tencarva for interest on any amount not paid when due at a rate of one and one half percent (1 1/2%) per month, or the maximum rate permitted by law, whichever is less, together with all costs of collection. All prices for Products and Services are exclusive of all taxes. Wherever applicable, any tax or taxes will be added to the invoice as a separate charge to be paid by Buyer.

5. To the extent that Products or any portion thereof are supplied according to Buyer's design or instructions, are modified by Buyer, are combined by Buyer with equipment or things not furnished hereunder, or are used by Buyer to perform a process or produce a product, and by reason of said design, instructions, modification, combination, performance or production, a suit or proceeding is brought against Tencarva, Buyer shall defend, indemnify, release and hold harmless Tencarva, its directors, officers, employees, agents, representatives, successors and assigns against any and all liability, suits, actions, or proceedings, at law or in equity, and from any and all claims, demands, losses, judgments, penalties, damages, costs and expenses arising therefrom and in connection therewith, including, without limitation, patent infringement claims.

6. Buyer shall supply to Tencarva, in a timely fashion, all required technical information, including drawing approval and all required documentation. Tencarva shall not be liable for loss, damage, delay, and/or late delivery due to causes beyond its reasonable control, including, without limitation, late delivery by the manufacturer of the Products, fire, strike or concerted action of workmen, act or omission of any governmental authority, or delays in transportation. In the event of delay due to any such cause, the date of delivery will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

Lumberton City Council

Item: IV.L.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Legal

Submission Date: 12/31/2024

Subject: Appointment to Personnel Board

Summary/Background of Subject Matter:

Abe Marshal has resigned from the Personnel Board after a period of long and dutiful service, and Council needs to appoint a replacement. It is imperative that a member is appointed as soon as possible. It is important that the members of the Personnel Board have human resource-related experience. There is also a goal of ethnic diversity on the board, which is currently addressed as Jay Humphrey and Felicia Hunt, currently on the board, are Caucasian and Native American respectively. Mr. Angus Thompson, former Public Defender for Robeson County and a long-term resident of Lumberton has accepted to serve as an interim member, so that some current matters can be heard, and for so long as the arrangement works for the City and Mr. Thompson.

Staff Recommendation:

Appoint Angus Thompson as an Interim member to the Personnel Board.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: Legal

ATTACHMENTS:

None

Lumberton City Council

Item: IV.M.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Attorney

Submission Date: 01/07/2025

Subject: Revisions to Education Adjustment Policy

Summary/Background of Subject Matter:

It was determined that our Educational Adjustment Policy, through which employees receive higher pay for various degrees, needed some more specific language. The new proposed language is attached and the current language is at the end for comparison.

Staff Recommendation:

Approve revisions to Educational Adjustment Policy.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: City Attorney

ATTACHMENTS:

1. DraftRevisionsDec042024

Clarifying Amendments to Educational Adjustment Policy

NEW / PROPOSED:

16-46 Educational Adjustment

Qualifying Employees: The following two subsections shall apply to a newly hired employee coming into a full-time position, as well as an existing full-time employee, and shall apply to degrees obtained prior to hire as well as once employed. The increases described will be provided to newly hired full-time employees at the end of their probationary period.

- (a) Qualifying employees shall receive a one-step increase in pay for possessing or obtaining an Associate's Degree from an accredited institution of higher learning on the recommendation of the Department Head and with the approval of the City Manager. The criterion for this decision is described in subsection c below.
- (b) Qualifying employees shall receive a two-step increase in pay for possessing or obtaining a Bachelor's Degree from an accredited institution of higher learning on the recommendation of the Department Head and with the approval of the City Manager. The criterion for this decision is described in subsection c below. *However, there shall be a maximum of a two-step increase for the combination of an Associate's Degree and a Bachelor's Degree. By way of further explanation, if one obtains an Associate's Degree and receives the one-step increase, should they subsequently obtain a Bachelor's Degree they will only receive an additional one-step increase. Similarly, a new-hire who has an Associate's Degree and a Bachelor's Degree shall receive only a two-step increase (not three).* This is not intended to be an exhaustive list of scenarios.
- (c) Qualifying employees who have or obtain a Master's Degree from an accredited institution of higher learning shall receive a two-step pay increase, above and beyond that received for a Bachelor's Degree, subject to the criteria and process described in Paragraph (e).
- (d) Employees who have or obtain a PhD degree may be eligible for a two-step increase above and beyond that provided for a Master's Degree, pursuant to the process in Paragraph (e), but there will be a higher level of scrutiny as to whether employee's holding of the degree is beneficial to the City than that for lower level degrees. Such compensation will ultimately be paid entirely at the Manager's discretion.
- (e) Existing employees enrolling in a degree program shall tender an application to the Human Resources Director for prior approval as to the Educational Adjustment. Failure to obtain approval may result in denial of the Adjustment. The City Manager will confer with the Human Resource Director and the Department Head and decide whether the degree will better equip the employee to perform his or her assigned duties or reasonably potentially enable the employee to qualify for another position within the City, in which case the request will be approved. The same criteria (aside from pre-approval) shall be applied to degrees obtained prior to employment. In all cases, the employee must continue to perform his job duties in a satisfactory manner.
- (f) For any degree program which is a "distance learning" program or which contains or requires all or part of the coursework to be done via the Internet or "on-line", the institution must be accredited by

the U.S. Department of Education for “distance learning institutions.” Approval by the City Manager is required for the distance learning requested.

OLD / EXISTING:

Sec. 16-46. Educational adjustment.

- (a) A fulltime regular employee who obtains an Associate Degree from an accredited institution of higher learning while employed by the city shall receive a one-step pay increase on the recommendation of the department head and the approval of the city manager.
- (b) A fulltime regular employee who obtains a Bachelor or Masters Degree from an accredited institution of higher learning while employed by the city shall receive a two-step pay increase on the recommendation of the department head and the approval of the city manager.
- (c) Prior to enrolling in a degree program, the employee shall apply to the Human Resources Director for a written confirmation that the subject matter of the degree sought: (1) is related to the employee’s current job duties; or (2) will enable the employee to qualify for another position or job duties within the City. Unless such confirmation is received, the employee may not be eligible for an educational adjustment. You must have prior approval of the city manager.
- (d) For any degree program which is a “distance learning” program or which contains or requires all or part of the coursework to be done via the Internet or “on-line”, the institution must be accredited by the U.S. Department of Education for “distance learning institutions. You must have prior approval of the city manager.

Lumberton City Council

Item: IV.N.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Manager

Submission Date: 12/31/2024

Subject: Adopt a Resolution Accepting the Funding Offer for the Lead Service Inventory Project (Phase 1)

Summary/Background of Subject Matter:

The City of Lumberton has been approved for funding assistance in the amount of \$1,000,000 for the Lead Service Inventory Project (Phase 1) by the North Carolina Division of Water Infrastructure. Attached for Council's approval is a Resolution Accepting the funding offer and accepting the Conditions and Assurances and a Capital Project Ordinance for the project. In the October 7, 2024, Council meeting, council awarded the professional services contract for this project to The Wooten Company.

Staff Recommendation:

Adopt the attached Resolution Accepting the funding offer of \$1,000.000 and the Capital Improvement Ordinance from the North Carolina Division of Water Infrastructure.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: City Manager

ATTACHMENTS:

1. BP-70C45_20241231_140621
2. 2025.01.01 -Resolution NC Department of Environment Quality - Lead Line Replacement Program - Phase 1
3. 2025.01.01 - CAPITAL PROJECT ORDINANCE -Lead Service Line Replacement Program

ROY COOPER

Governor

MARY PENNY KELLEY

Secretary

SHADI ESKAF

Director



December 23, 2024

Mr. Wayne Horne, City Manager
City of Lumberton
PO Box 1388
Lumberton, NC 28359

SUBJECT: Lead Service Line Replacement Program
Funding Offer
City of Lumberton
Lead Service Inventory Project (Phase 1)
Project No.: SRF-D-LSL-0107

Dear Mr. Horne:

The City of Lumberton has been approved for funding assistance according to the subject funding offer. This offer is made subject to the Assurances and Conditions attached to this document.

Upon your acceptance, please submit the following items via Laserfiche at the following link: <https://edocs.deq.nc.gov/Forms/DW-Document-Upload-Form>.

1. One (1) copy of the original Offer and Acceptance Document executed by the Authorized Representative for the project, along with the Conditions and Assurances. **Retain a copy for your files.**
2. A resolution adopted by the governing body accepting the funding offer and making the applicable Conditions and Assurances contained therein. A sample of a suggested format is enclosed.
3. The Federal Identification Number and Unique Entity ID Number of the Recipient (UEID required for federally funded projects)
4. Sales-Tax Certification (form enclosed)

Please note that closing costs for the current loan are 2% of the total loan amount, which is \$20,000. Please use the attached invoice to remit payment.



North Carolina Department of Environmental Quality | Division of Water Infrastructure
512 N. Salisbury Street | 1633 Mail Service Center | Raleigh, North Carolina 27699-1633
919.707.9160

Mr. Wayne Home, City Manager

City of Lumberton

December 23, 2024

Page 2 of 2

The enumerated items above as well as the payment of closing fees **are due before disbursements can begin**. Disbursement requests are to be submitted via Laserfiche at the following link: <https://edocs.deq.nc.gov/Forms/DW-Document-Upload-Form>. A reference copy of the Disbursement Request Form (also found on the DWI website) has been enclosed for your convenience.

Please note that disbursement of loan funds is contingent upon debt approval by the Local Government Commission (LGC). You may coordinate debt approval directly with the LGC by e-mail at srf@nctreasurer.com.

On behalf of the Department of Environmental Quality, I am pleased to make this funding offer. Should you have any questions concerning this offer of funding, or any of the stipulations outlined in this offer package, please contact Renee Parkman either by telephone at 704-235-2203 or by e-mail at renee.parkman@deq.nc.gov.

Sincerely,

Signed by:

Kavitha Ambikadevi

on behalf of

Shadi Eskaf, Director

Division of Water Infrastructure, NCDEQ

Enclosures: Offer and Acceptance Document
Assurances & Conditions
Federal ID and UEID Number Request Memo
Resolution to Accept Funding Offer (suggested format)
Sales-Tax Certification Form
Disbursement Request Form
Site Certification
Capital Project Ordinance (sample)
Closing Fee Invoice

cc: John C. Grey, P.E., The Wooten Company (jgrey@thewootencompany.com)
Mark Hubbard, P.E. (Via DocuSign)
Jeannine Press (Via DocuSign)
Teresa Tripp (Via DocuSign)
DEQ.DWI.FundingOffer@deq.nc.gov

DWI Agreement ID: 2000077762 (COM_LOX)

**STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER INFRASTRUCTURE**

Funding Offer and Acceptance

Legal Name and Address of Award Recipient

Project Number: SRF-D-LSL-0107

City of Lumberton
PO Box 1388
Lumberton, NC 28359

Assistance Listing Number: 66.468
Unique Entity ID Number: W62KLWWQW1N4

Funding Program

Drinking Water	☒	Additional Amount for Funding Increases	Previous Total	Total Offered
Stormwater	☐			
Wastewater	☐			
BIL-DWSRF-LSLR Fund - Repayable Loan	☒	--	--	\$ 100,000
BIL-DWSRF-LSLR Fund - Principal Forgiveness	☒	--	--	\$ 900,000
State Reserve Loan	☐			
State Reserve Grant	☐			
State Reserve Earmark (S.L. 2023-134)	☐			
American Rescue Plan Act - Choose an item.	☐			

Project Description:

Lead Service Line Inventory Project (Phase 1)

Total Financial Assistance Offer: \$ 1,000,000
Total Project Cost: \$ 1,000,000
Estimated Closing Fee*: \$ 20,000
For Loans
Interest Rate: 0% Per Annum
Maximum Loan Term: 5 Years

**Estimated closing fee calculated based on grant and loan amount.*

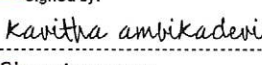
Pursuant to North Carolina General Statute 159G:

- The applicant is eligible under Federal and State law,
- The project is eligible under Federal and State law, and
- The project has been approved by the Department of Environmental Quality as having sufficient priority to receive financial assistance.

The Department of Environmental Quality, acting on behalf of the State of North Carolina, hereby offers the financial assistance described in this document.

For The State of North Carolina:

**Shadi Eskaf, Director, Division of Water Infrastructure
North Carolina Department of Environmental Quality**

Signed by:  Signature	on behalf of Shadi Eskaf	12/30/2024 Date
--	-----------------------------	--------------------

On Behalf of:

City of Lumberton

Name of Representative in Resolution:

Title (Type or Print):

I, the undersigned, being duly authorized to take such action, as evidenced by the attached CERTIFIED COPY OF AUTHORIZATION BY THE APPLICANT'S GOVERNING BODY, do hereby accept this Financial Award Offer and will comply with the attached Assurances and the Standard Conditions.

Signature	Date
-----------	------

APPLICABLE STANDARD CONDITIONS*

Project Applicant: City of Lumberton

Project Numbers: SRF-D-LSL-0107

1. **Social Authorities:** Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act, The Age Discrimination Act of 1975, Section 13 of the Federal Water Pollution Control Act Amendments of 1972, and Equal Employment Opportunity (Executive Order No 11246, as amended) which prohibits activities that are intentionally discriminatory and/or have a discriminatory effect based on race, color, religion, sex, sexual orientation, gender identity, or national origin.
2. **Environmental Authorities:** National Environmental Act, National Historic Preservation Act, Archeological and Historic Preservation Act, Protection of Wetlands, Flood Plain Management, Farmland Protection Policy Act, Coastal Zone Management Act, Coastal Barriers Resources Act, Wild and Scenic Rivers Act, Endangered Species Act, Essential Fish Habitat and the Safe Drinking Water Act applicability will be determined upon submittal of an Environmental Information Document (EID) during the Engineering Report review process.
3. Acquisition of Real Property must comply with all applicable provisions of the Uniform Relocation and Real Property Acquisition Policies Act of 1970 (PL 92-646), as amended. The applicant shall certify that it has or will have a fee simple or such other estate or interest in the site of the project, including necessary easements and rights-of-way, to assure undisturbed use and possession for the purpose of construction and operation for the estimated life of the project using a certification form provided by DEQ.
4. Specific MBE/WBE (DBE) forms and instructions are provided that are to be included in the contract specifications. These forms will assist with documenting positive efforts made by recipients, their consultants and contractors to utilize disadvantaged businesses enterprises. Such efforts should allow DBEs the maximum feasible opportunity to compete for subagreements and subcontracts to be performed. Documentation of efforts made to utilize DBE firms must be maintained by all recipients, and construction contractors, and made available upon request.
5. Debarment and Suspension, Executive Order No. 12549: Subrecipients shall fully comply with Subpart C of 2 CFR Part 180 entitled, "Responsibilities of Participants Regarding Transactions Doing Business with Other Persons," as implemented and supplemented by 2 CFR Part 1532. Recipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 2 CFR Part 180, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. Recipient is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. Subrecipients may access suspension and debarment information at: <http://www.sam.gov>. This system allows subrecipients to perform searches determining whether an entity or individual is excluded from receiving Federal assistance.
6. The construction contract(s) requires the contractor to adhere to Davis Bacon and Related Acts Provisions and Procedures as listed in the Code of Federal Regulations Chapter 29 Part 5 Section 5 (29 CFR 5.5). Public Law pertaining to this is also enacted in Title 40, United States Code, Subtitle II Section 3141 through Section 3148.
7. As required by H.R. 3547, "Consolidated Appropriations Act, 2014" Section 436, Division G, Title IV, this project is subject to American Iron and Steel provisions. The State provides detailed requirements to be included in the construction contract specifications.
8. Section 603(d)(1)(E) of the Federal Water Pollution Control Act requires subject projects to develop and implement a Fiscal Sustainability Plan (FSP) for projects that involve the repair, replacement or expansion of publicly owned treatment works. Note that FSPs are not required for new treatment works. The certification provided must be submitted regarding compliance with this section of the Act.
9. Section 602(b)(14) of the Clean Water Act requires projects receiving CWSRF funding to comply with Federal engineering procurement guidelines. The State provides a certification form that must be completed prior to receiving funds for any engineering services covered under this funding offer.

10. Pursuant to 2 C.F.R. § 200.216, subrecipients cannot obligate SRF funds to: (1) procure or obtain; (2) extend or renew a contract to procure or obtain; or (3) enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services (as described in Public Law 115-232, Section 889) as a substantial or essential component of any system, or as a critical technology as part of any system.

**Note: 1 does not require anything to be submitted. 8 and 9 apply to the CWSRF only. Details on all of these conditions can be found the EPA Cross-Cutter handbook.*

ASSURANCES

Project Applicant: City of Lumberton **Project Numbers:** SRF-D-LSI-0107

1. The Applicant intends to construct the project or cause it to be constructed to final completion in accordance with the Application approved for financial assistance by the Division.
The recipient acknowledges that in the event a milestone contained in the most recent Clean Water State Revolving Fund Intended Use Plan and/or the Letter of Intent to Fund is missed, the Department of Environmental Quality will rescind this Funding Offer.
2. The Applicant is responsible for paying for the costs ineligible for SRF funding.
3. The construction of the project, including the letting of contracts in connection therewith, conforms to the applicable requirements of State and local laws and ordinances.
4. As of the acceptance of this Funding Award Offer, steps A-D in the SRF Guidance will be complete. These Assurances, likewise, incorporate the most recent version of the SRF Guidance, and the Applicant hereby certifies by accepting this Funding Award Offer that it will adhere to the subsequent steps in the SRF Guidance document. The remaining steps generally govern project design, bidding, contracting, inspection, disbursements, closeout and repayment.
5. The Applicant will provide and maintain adequate engineering supervision and inspection.
6. The recipient agrees to establish and maintain a financial management system that adequately accounts for revenues and expenditures. Adequate accounting and fiscal records will be maintained during the construction of the project and these records will be retained and made available for a period of at least three years following completion of the project.
7. All SRF funds loaned shall be expended solely for carrying out the approved project, and an audit shall be performed in accordance with G.S. 159-34. Partial disbursements on this loan will be made promptly upon request, subject to adequate documentation of incurred eligible costs, and subject to the recipient's compliance with the Standard Conditions of this Award. The Applicant agrees to make prompt payment to its contractor, and to retain only such amount as allowed by North Carolina General Statute.
8. The applicant will expend all of the requisitioned funds for the purpose of paying the costs of the project within three (3) banking days following the receipt of the funds from the State. Please note that the State is not a party to the construction contract(s) and the Applicant is expected to uphold its contract obligations regarding timely payment.
9. The applicant acknowledges that loan funds contained in this Funding Offer require approval from the North Carolina Local Government Commission before they can be disbursed.

Date: December 23, 2024

INVOICE

NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER INFRASTRUCTURE

Payable to: NC/DEQ-DWI

Mail to: Attention: Business Office
Division of Water Infrastructure
1633 Mail Service Center
Raleigh, NC 27699-1633

Bill to: Mr. Wayne Horne, City Manager
City of Lumberton
P.O. Box 1388
Lumberton, NC 28359

Item: 2% Closing Fee for SRF Project No. SRF-D-LSL-0107

Loan Amount: \$ 1,000,000

Closing Fee Amount: \$ 20,000

AMOUNT DUE: \$ 20,000

****PAYMENT IS DUE BEFORE PAY REQUEST SUBMITTAL ****

FOR USE OF DIVISION OF WATER INFRASTRUCTURE

Deposit to Fund _____ **Amount Paid** _____

FEDERAL ID & Unique Entity ID # REQUEST MEMO

TO: All Loan and Grant Recipients

SUBJECT: Federal Identification Number

Please be advised that all local government units receiving grant or loan funds from the State of North Carolina must supply their Federal Identification Number to this office upon acceptance of your loan/grant offer. Therefore, please provide the information below and return to the Division via email at DEQ.DWI.FundingOffer@deq.nc.gov.

RECIPIENT:

PROJECT NUMBER:

FEDERAL IDENTIFICATION NUMBER:

UNIQUE ENTITY ID:

RESOLUTION BY GOVERNING BODY OF APPLICANT *(Suggested Format)*

WHEREAS, the Bipartisan Infrastructure Law (BIL) of 2021 and North Carolina General Statute (NCGS) 159G have authorized the making of loans to aid eligible, drinking-water system owners in financing the cost of inventorying and replacing lead service lines; and

WHEREAS, the North Carolina Department of Environmental Quality has offered a Drinking Water State Revolving Fund – Lead Service Line Replacement (DWSRF-LSLR) loan in the amount of (INSERT dollar amount here: \$ _____) to conduct (INSERT project description here), hereafter referred to as the “Project”; and

WHEREAS, the (INSERT name of drinking-water system owner here) intends to conduct said Project in accordance with a scope of work that was approved by the North Carolina Division of Water Infrastructure.

NOW, THEREFORE, BE IT RESOLVED BY THE (INSERT NAME OF GOVERNING BODY HERE) OF THE (INSERT NAME OF DRINKING-WATER SYSTEM OWNER: “CITY OF...”, “TOWN OF...”, “COUNTY OF” and so forth):

That (INSERT name of drinking-water system owner) does hereby accept the DWSRF-LSLR loan offer in the amount of (INSERT dollar amount here: \$ _____); and

That the (INSERT name of drinking-water system owner) does hereby give assurance to the North Carolina Department of Environmental Quality that they will adhere to all applicable items specified in the standard “Conditions” and “Assurances” of the Department’s funding offer, awarded in the form of (SPECIFY here type(s) of loan or grant offered); and

That (INSERT here the name and title of your Authorized Representative), and successors so titled, is hereby authorized and directed to furnish such information, as the appropriate State agency may request, in connection with such application or the Project; to make the Assurances as contained above; and to execute such other documents as may be required in connection with the application; and

That the (INSERT name of drinking-water system owner) has complied substantially or will comply substantially with all Federal, State and local laws, rules, regulations, and ordinances applicable to the Project, and to Federal and State grants and loans pertaining thereto.

Adopted this the (INSERT here date resolution adopted) at (INSERT place name here), North Carolina.

(Signature of Chief Executive Officer)

(Date)

SALES-TAX REIMBURSEMENT CERTIFICATION FORM

(FOR FUNDING PROGRAMS IN THE DIVISION OF WATER INFRASTRUCTURE)

Applicant: _____

Project Number: _____

☐ Check If Applicant is not a unit of government under North Carolina law

If Applicant noted above is a Unit of Government in North Carolina, check the applicable box below.

Sales Tax **IS** deducted in this scenario. Please show this on the disbursement requests.

☐ The construction contract was bid with sales taxes and the unit of government will request reimbursement from the DOR.

Sales Tax **IS NOT** deducted in either of these scenarios.

☐ The construction contract was bid with sales taxes and the unit of government will not request reimbursement from the DOR.

☐ The construction contract was bid without sales taxes

(Printed Name and Title of Authorized Representative)

(Signature of Authorized Representative)

(Date)

DISBURSEMENT REQUEST FORM **NC Division of Water Infrastructure**

Funding Recipient: _____ Payment No. _____ Page No. _____
DWI Project No. _____ Period Covered From: _____ To: _____

	Cumulative Cost to Date	Minus Ineligibles	Minus Overruns Not App'd By Change Order	Subtotal of Payable Cost	Minus Retainage on Payable Cost	Minus Cumulative Sales Tax	Other Adjustments (Other Funds e.g.)	Minus Previously Paid to Date	Requested For This Pay Request
CONSTRUCTION <i>(Rename as appropriate)</i>									
Contract 1	\$1,200,000	(\$100,000)	(\$100,000)	\$1,000,000	(\$50,000)	(\$50,000)	(\$500,000)	(\$300,000)	\$100,000
Contract 2	\$505,000		(\$5,000)	\$500,000	(\$25,000)	(\$10,000)		(\$400,000)	\$65,000
Contract 3									
Contract 4									
Contract 5									
ENGINEERING <i>(Rename as appropriate)</i>									
Item 1	\$250,000							(\$250,000)	\$0
Item 2									
Item 3									
Item 4									
OTHER COSTS <i>(Rename as appropriate)</i>									
Item 1									
Item 2									
Item 3									
PAY REQUEST TOTALS	\$1,955,000	(\$100,000)	(\$105,000)		(\$75,000)	(\$60,000)	(\$500,000)	(\$950,000)	\$165,000
Certification									
Grant Percentage for SRP Projects: _____ %									

I certify that to the best of my knowledge and belief the incurred costs being requested for disbursement are in accordance with terms of the project and that this request represents the monies due which have not been previously received and that an inspection has been performed and all work is in accordance with the terms and conditions of the award.
For applicable SRF projects, the project remains in compliance with Davis-Bacon and American Iron and Steel conditions or is the process of remediating noncompliance.

You must check ONE of the boxes below or your payment will not be processed:
The funds requested above have already been paid to the respective vendors, consultants & contractors by the funding recipient ☐
OR
The funds requested above have not been paid to the respective vendors, consultants & contractors. ☐
Funds received from the State will be disbursed to these entities within three (3) banking days.

Type or Print Name and Title _____ Signature of Authorized Representative _____ Date _____
DWI comments _____

Instructions and notes on how to use this form
- Complete guidance for preparing disbursement requests can be found in section G.2. of the North Carolina SRF Program Overview and Guidance that was included with your Funding offer (applicable to State grants and loans too).
- The form, as downloaded, is filled out with sample numbers. It is suggested that the sample be used as a reference (saved or printed).
- Please submit ONE COPY of this form and backup documents when requesting funds.
- Only the Authorized Representative can sign this form, unless declared otherwise in a resolution.
- Construction contract line item overruns and engineering amendments before those costs will be paid.



Water Infrastructure
ENVIRONMENTAL QUALITY

CERTIFICATION REGARDING UNIFORM RELOCATION
ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES
(URLAP) ACT OF 1970

Applicant: _____
Project No.: _____
Project Name: _____

Please check appropriate boxes:

☐ I certify that all real property (including easements) has been acquired or condemnation proceedings have been entered into for property thereby providing legal access for this project. AND
☐ I certify to the best of my knowledge and belief that the acquisition of property specifically for the above referenced project is in compliance with the URLAP Act of 1970 (the Uniform Act). The acquisition either: ☐ Acquisition of real property did not result in the displacement of any person, business or farm operation. ☐ or relocation was involved in the land acquisition, the Federal Highway Administration (FHA) was contacted for technical assistance. OR ☐ Compliance with the Uniform Act does not apply because the land and/or easements associated with the above referenced project were acquired prior to the inception of the project. Date land acquired: _____

I understand that a false statement on this certification may be grounds for rejection or termination of this loan.

Signature of Applicant's Authorized Representative or Attorney

Date

Typed Name and Title

Capital Project Ordinance

Be it ORDAINED by the Governing Board of the (Town of Anywhere), North Carolina, that pursuant to section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following capital Project Ordinance is hereby adopted.

Section 1: The Project authorized is the (construction/rehabilitation of a wastewater treatment/collection System) to be financed by (the sale of general obligation bonds/ARRA loan /federal loan/state loan / state grants and reserves).

Section 2: The officers of this unit are hereby directed to proceed with the capital project within the terms of the board resolution, loan documents and the budget contained herein.

Section 3: The following amounts are appropriated for the project:

Engineering	\$ 120,000
Land	90,000
Construction	<u>1,440,000</u>
	<u>\$ 1,650,000</u>

Section 4: The following revenues are anticipated to be available to complete this project:

Federal/ARRA Loan	\$ 1,100,000
Proceeds from general Obligation Bonds	\$ 500,000
Transfer from Wastewater treatment capital Reserve	<u>\$ 20,000</u>
	<u>\$ 1,650,000</u>

Section 5: The finance officer is hereby directed to maintain within the capital project fund sufficient specific detailed accounting records to satisfy the requirements of the grantor agency, the grant agreements, and federal regulations. The terms of the bond resolution also shall be met.

Section 5: Funds may be advanced from the General Fund for the purpose of making payments as due.

Disbursement requests should be made to the grantor agency in an orderly and timely manner. Section

7: The finance officer is directed to report, on a quarterly basis, on the financial status of each project element in section 3 and on the total grant/loan revenues received or claimed.

Section 8: The Budget Officer is directed to include a detailed analysis of past and future costs and revenues on this capital project in every budget submission made to this board.

Section 9: Copies of this capital project ordinance shall be furnished to the clerk to the Governing Board, and to the Budget Officer and the Finance officer for direction in carrying out this project.

Duly adopted this __ day of ____ 201_.

Signature, (Authorized Rep)

(Seal)

Attest: _____
Signature (Town Clerk)



1 / 37

Beds



3

Baths



3 (2 full - 1 half)

Size



1701-1800

Days on OneHome



13

Move-in ready 3BR/2.5BA home nestled on private cul-de-sac in Mayfair. Home did not have any flooding issues. Home is located on one of the largest lots in the neighborhood! Features include hardwood floors, open floor plan, custom built-ins in living, and an amazing back yard! Detached two-car garage with approx 675 sq ft suite above garage with living, dining, bedroom, and bathroom. Roof was replaced in 2020, fresh paint throughout, exterior si...

[Read More](#)Estimated Monthly Cost: ~~\$1,672~~ >

FROM MARKETPLACE

[Get Insurance Quotes](#)[Estimate a Project](#)

Features

Type: Single Family Residence

Year Built: 1981

Lot Size Area: .26-.5 Acres

Garage Spaces: 2

Heating: Heat Pump

Cooling: Central Air, Electric

County/Parish: Robeson

Subdivision: MAYFAIR

Closed On: Feb 1, 2022

LR

**RESOLUTION OF THE LUMBERTON CITY COUNCIL OFFER AND ACCEPTANCE
OF THE DRINKING WATER STATE REVOLVING FUND – LEAD SERVICE LINE
REPLACEMENT (DWSRF-LSLR) LOAN OFFERED BY THE NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY**

WHEREAS, the Bipartisan Infrastructure Law (BIL) of 2021 and North Carolina General Statute (NCGS) 159G have authorized the making of loans to aid eligible, drinking-water system owners in financing the cost of inventorying and replacing lead service lines, and

WHEREAS, North Carolina Department of Environment Quality has offered Drinking Water State Revolving Fund – Lead Service Line Replacement (DWSRF-LSLR) grant/loan in the amount of \$1,000,000.00 to conduct the inventorying and replacing lead service lines in the Lead Service Inventory Project (Phase 1), and

WHEREAS, the City of Lumberton intends to conduct said project in accordance with the agreed scope of work,

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LUMBERTON:

1. That the Lumberton City Council does hereby accept the (DWSRF-LSLR) offer of \$1,000,000.00 and:
2. The Lumberton City Council does hereby give assurance to the North Carolina Department of Environment Quality that any Conditions or Assurances contained in the Award Offer will be adhered to.
3. That T. Wayne Horne, City Manager and successors so titled, is hereby authorized and directed to furnish such information as the appropriate State agency may request in connection with such application or the project; to make the assurances as contained above; and to execute such other documents as may be required by the Division of Water Infrastructure.
4. The City of Lumberton has substantially complied or will substantially comply with all Federal, State and local laws, rules, regulations, and ordinances applicable to the project.

On motion of Councilman Cantey, seconded by Councilman Carroll, the foregoing Resolution was adopted on the 13th day of January, 2025.

Bruce W. Davis, Mayor

ATTEST:

Laney Mitchell-McIntosh, City Clerk

Resolution No. 2025.01.01

**CAPITAL PROJECT ORDINANCE
LEAD AND COPPER INVENTORY PHASE 1**

BE IT ORDAINED by the City of Lumberton, North Carolina, that pursuant to the General Statutes of North Carolina 159-13.2, the following Capital Project Ordinance is hereby adopted.

Section 1: The project authorized is the Lead and Copper Inventory Phase 1 Project to be financed by with a \$1,000,000 grant/loan from the North Carolina Division of Water Infrastructure .

Section 2: The Public Works Director is designated as the Project Director and is hereby directed to proceed with the capital project with the terms of the various agreements executed and within the funds appropriated herein.

Section 3: The following amounts are appropriated to be available to the City to complete the project.

<u>Expenditures</u>	<u>Amounts</u>
Engineering	\$ 890,000
Administrative	\$ 130,000
Total	\$ 1, 020,000

Section 4: The following revenues are anticipated to be available to the City for this project:

<u>Revenues</u>	<u>Amounts</u>
Federal Grant/Loan	\$ 1,000,000
Proceeds from General Obligation Bonds	\$ 0
Transfer from Wastewater Capital Reserve	\$ 20,000
Total	\$ 1,020,000

Section 5: The Finance Director is hereby directed to maintain within the capital project fund sufficient specific detailed accounting records to satisfy the requirements of the grantor agency, the grant agreements, and federal regulations. The terms of the bond resolution also shall be met.

Section 6: Funds may be advanced from the General Fund for the purpose of making payments as due. Reimbursement requests should be made to the grantor agency in an orderly and timely manner.

Section 7: The Finance Director is to report monthly to the City Manager on the financial status of the project and the City Manager shall keep the City Council informed of any unusual occurrences, as well as the financial status of the Project.

Section 8: Copies of the Capital Project Ordinance shall be filed with the City Clerk, Budget Officer, and Finance Director no later than

Upon motion of Council _____, and seconded by Council _____, This project ordinance is adopted on this the 13th day of January, 2025.

Bruce W. Davis, Mayor

ATTEST:

Laney Mitchell-McIntosh, City Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

E. Holt Moore, City Attorney

Ordinance No. 2025.01.01

Lumberton City Council

Item: IV.O.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Council

Submission Date: 01/06/2025

Subject: Lumberton High School Wrestling Teams

Summary/Background of Subject Matter:

Councilmen Cantey and Douglas would like to designate \$125 each to the Lumberton High School Wrestling Teams for their upcoming State Tournaments to be held in the Greensboro Coliseum on January 20 - 22, 2025.

Staff Recommendation:

Approve the designation of \$250 (\$125 each from Councilmen Cantey and Douglas) CRF to the Lumberton High School Wrestling Teams for their upcoming State Tournaments to be held in the Greensboro Coliseum on January 20 - 22, 2025.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: City Council

ATTACHMENTS:

None

Lumberton City Council

Item: IV.P.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Council

Submission Date: 01/06/2025

Subject: Dr. Martin Luther King Parade

Summary/Background of Subject Matter:

Councilmen Cantey and Douglas would like to designate \$100 each of CRF to Eshonda Hooper for the Dr. Martin Luther King, Jr. Parade to be held on January 25, 2025.

Staff Recommendation:

Approve the designation of \$200.00 (\$100 each from Councilmen Cantey and Douglas) to Eshonda Hooper for Dr. Martin Luther King, Jr. Parade to be held on January 25, 2025. Mail check to Eshonda Hooper, PO Box 1781, Lumberton, NC 28359.

City Manager's Comments:

Signature: Laney Mitchell-McIntosh, City Clerk

Department: City Council

ATTACHMENTS:

None

Lumberton City Council

Item: IV.Q.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: City Council

Submission Date: 01/08/2025

Subject: St. Alban's Masonic Lodge Request

Summary/Background of Subject Matter:

Councilwoman Robinson is requesting \$500 of CRF be designates to the St. Alban's Masonic Lodge . The Lodge received a donation of twenty-five bicycles helmets and started an outreach within our local community to purchase bicycles for the 13 children ranging from 3 to 13 years of age living in Grace Court Apartments. The goal is to raise enough funding that they can distribute helmets and bicycles to the children within this community.

Staff Recommendation:

Approve the designation of \$500 to St. Alban's Masonic Lodge as stated above in Precinct 2.

City Manager's Comments:

Signature:

Department: City Council

ATTACHMENTS:

1. BP-70C45_20250108_132450



St. Alban's Masonic Lodge #114

P.O. Box 904
Lumberton, NC 28359

January 6, 2025

Melissa Robinson
500 North Cedar Street
Lumberton, NC 28358

Ms. Robinson,

St. Alban's Masonic Lodge received a donation of twenty-five bicycle helmets consisting of various sizes and styles. The donation sparked an opportunity for the Lodge to outreach to our local community and coordinate an event for the children of Grace Court Apartments. Grace Court, located at 3750 Meadow View Road, is a transitional housing community that currently has twenty-seven children ranging from 3 to 13 years of age living with their guardians. Our goal is to raise enough funding that we can distribute helmets and bicycles to the children of the Grace Court community.

We have had the good fortune to raise \$1000 in donations thus far; however, there is still a funding shortfall. Any funding assistance that the City of Lumberton could provide would go entirely to purchasing bicycles and safety equipment for the children. The Lumberton Fire Department has also offered to setup a bicycle riding safety class for the children aimed at promoting helmet and roadway safety when the bicycles are distributed.

I would like to thank you for your time and consideration for this opportunity. Please feel free to contact me if you have any further questions.

Sincerely,

Jeremy Gerald
Master of the Lodge
(910) 827-0022

Lumberton City Council

Item: IV.R.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Police

Submission Date: 01/13/2025

Subject: Authorize the Lumberton Police Department to apply for and accept the FY26 GHSP Grant

Summary/Background of Subject Matter:

The Lumberton Police Department is requesting permission to apply for and accept the 2026 GHSP Grant in the amount of \$171,500.00 This is the sixth year of this grant and there is no match; this year the City of Lumberton will fund 100% of the cost.

Staff Recommendation:

It is recommended that the Lumberton Police Department be granted permission to apply for and accept the 2026 GHSP Grant in the amount of \$171,500.00.

City Manager's Comments:

Signature:

Department: Police

ATTACHMENTS:

None

Lumberton City Council

Item: IV.S.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Police

Submission Date: 01/13/2025

Subject: Authorize Lumberton Police Department to apply for and accept FY26GHSP Grant for overtime

Summary/Background of Subject Matter:

The Lumberton Police Department is requesting permission to apply for and accept the 2026 GHSP Grant in the amount of \$26,000.00. Funding for this grant is specifically for overtime operations to conduct saturation or directed patrols for high-visibility traffic enforcement efforts emphasizing speed-related violations as well as seat belt and child restraint violations. There is no match for this grant, if approved it will be funded 100% by GHSP.

Staff Recommendation:

It is recommended that the Lumberton Police Department be granted permission to apply for and accept the 2026 GHSP Grant in the amount of \$26,000.00.

City Manager's Comments:

Signature:

Department: Police

ATTACHMENTS:

None

Lumberton City Council

Item: IV.T.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Police

Submission Date: 01/13/2025

Subject: Authorization for Lumberton Police Department to apply for and accept NC Governor's Crime Commission Grant

Summary/Background of Subject Matter:

Funding from this grant will be used to furnish and supply equipment for a forensic interviewing site. This site will be used to interview juveniles (children) who are victims of sexual assaults and/or abuse. The Lumberton Police Department will collaborate with both the Robeson County Sheriffs Office and the District Attorney's Office to provide this service. This site will benefit the department as it eliminates wait time due to sending individuals to Child Advocacy Centers outside of our local area. The proximity of this location will also prevent the loss of pertinent evidence needed for cases.

Staff Recommendation:

It is recommended that the Lumberton Police Department be authorized to apply for and accept a grant in the amount of \$25,000.00 from the NC Governor's Crime Commission.

City Manager's Comments:

Signature:

Department: Police

ATTACHMENTS:

None

Lumberton City Council

Item: IV.U.

Lumberton, North Carolina



Request for Action

Meeting Date: January 13, 2025

Originated By: Public Works

Submission Date: 01/13/2025

Subject: Emergency Sewer Repairs

Summary/Background of Subject Matter:

Attached is a quote from Hickman Utilities to perform emergency sewer repairs at the following locations: Elizabethtown Road to Water Street; Fuller Avenue, W. 5th Street behind the Marathon gas station, Ivey Ball Park, Floyd's Mortuary and Carolina from Cherokee to East Street. The quote is for \$78,750 to be paid out of the water and sewer capital reserve fund.

Staff Recommendation:

Recommend that City Council approve the quote of \$78,750 for emergency sewer repairs to Hickman Utilities.

City Manager's Comments:

Signature:

Department: Public Works

ATTACHMENTS:

1. Est_1294_from_Hickman_Uilities_INC_4512

263 Singletary Millpond Rd
Bladenboro, NC 28320

Date	Estimate #
1/9/2025	1294

Name / Address
City of Lumberton

			Project
Description	Qty	Rate	Total
Dig out existing failing sewer main and replace with new pipe and rock,furnished by Town,connect all existing sewer service,Town to furnish all fittings including abc stone to be installed by Hickman Utilities at the following locations.Also remove asphalt and haul to Town disposal site and bad dirt where applies.			
Etown Rd to Water St 300' 12" PVC water line		5,400.00	5,400.00
Fuller Ave.392' of 8" pvc approx.10' in depth		18,000.00	18,000.00
W 5th St behind Marathon gas station 406' of 12" pvc approx.14' in depth.		15,500.00	15,500.00
Ivey Ball Park replace and move old sewer,install 280' of 8" pvc sewer,set new manhole		11,250.00	11,250.00
Floyds Mortuary 196' of 8" sewer and replace/install new manhole		11,100.00	11,100.00
Carolina from Cherokee to East St.252' of 8" sewer		17,500.00	17,500.00
We look forward to serving you.		Total	\$78,750.00